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A Few Hints in Landscape Gardening.

NOVEMBER is, above all others, the tree-planting month over the wide Union. Accordingly, every one who has a rood of land, looks about him at this season, to see what can be done to improve and embellish it. Some have bought new places, where they have to build and create everything in the way of home scenery, and they, of course, will have their heads full of shade trees and fruit trees, ornamental shrubs and evergreens, lawns and walks, and will tax their imagination to the utmost to see in the future all the varied beauty which they mean to work out of the present blank fields that they have taken in hand. These, look for the most rapid-growing and effective materials, with which to hide their nakedness, and spread something of the drapery of beauty over their premises, in the shortest possible time. Others, have already a goodly stock of foliage and shade, but the trees have been planted without taste, and by thinning out somewhat here, making an opening there, and planting a little yonder, they hope to break up the stiff boundaries, and thus magically to convert awkward angles into graceful curves, and harmonious outlines. Whilst others others, again, whose gardens and pleasure-grounds have long had their earnest devotion, are busy turning over the catalogues of the nurseries, in search of rare and curious trees and shrubs, to add still more of novelty and interest to their favorite lawn and walks. As the pleasure of creation may be supposed to be the highest pleasure, and as the creation of scenery in landscape gardening is the nearest approach to the matter that we can realise in a practical way, it is not difficult to see that November, dreary as it may seem to the cockneys who have rushed back to gas-lights and the paved streets of the city, is full of interest, and even excitement, to the real lover of the country.

It is, however, one of the characteristics of the human mind to overlook that which is immediately about us, however admirable, and to attach the greatest importance to

whatever is rare, and difficult to be obtained. A remarkable illustration of the truth of this, may be found in the ornamental gardening of this country, which is noted for the strongly marked features made in its artificial scenery by certain poorer sorts of foreign trees, as well as the almost total neglect of finer native materials, that are indigenous to the soil. We will undertake to say, for example, that almost one-half of all the deciduous trees that have been set in ornamental plantations of the last ten years, have been composed, for the most part, of two very indifferent foreign trees—the Ailantus and the Silver Poplar. When we say indifferent, we do not mean to say that such trees as the Ailantus and the Silver Poplar, are not valuable trees in their way—that is, that they are rapid growing, will thrive in all soils, and are transplanted with the greatest facility—suiting at once both the money-making grower and the ignorant planter—but we do say, that when such trees as the American Elms, Maples and Oaks, can be raised with so little trouble—trees as full of grace, dignity, and beauty, as any that grow in any part of the world—trees, too, that go on gathering new beauty with age, instead of throwing up suckers that utterly spoil lawns, or that become, after the first few years, only a more intolerbable nuisance every day—it is time to protest against the indiscriminate use of such sylvan materials—no matter how much of "heavenly origin," or "silvery" foliage, they may have in their well sounding names.

It is by no means the fault of the nurserymen, that their nurseries abound in ailantuses and poplars, while so many of our fine forest trees are hardly to be found. The nurserymen are bound to pursue their business so as to make it profitable, and if people ignore oaks and ashes, and adore poplars and ailantuses, nurserymen cannot be expected to starve because the planting public generally are destitute of taste.

What the planting public need is to have their attention called to the study of *nature*—to be made to understand that it is in our beautiful woodland slopes, with their undulating outlines, our broad river meadows studded with single trees and groups allowed to grow and expand quite in a state of free and graceful development, our steep hills, sprinkled with picturesque pines and firs, and our deep valleys, dark with hemlocks and cedars, that the real lessons in the beautiful and picturesque are to be taken, which will lead us to the appreciation of the finest elements of beauty in the embellishment of our country places—instead of this miserable rage for "trees of heaven" and other fashionable tastes of the like nature. There are, for example, to be found along side of almost every sequestered lawn by the road-side in the northern states, three trees that are strikingly remarkable for beauty of foliage, growth or or flower, viz: the Tulip tree, the Sassafras, and the Pepperidge. The first is, for stately elegance, almost unrivalled among forest trees: the second, when planted in cultivated soil and allowed a fair chance, is more beautiful in its diversified laurel-like foliage than almost any foreign tree in our pleasure grounds: and the last is not surpassed by the orange or the bay in its glossy leaves, deep green as an emerald in summer, and rich red as a ruby in autumn—and all of them freer from the attacks of insects than either larches, lindens, or elms, or a dozen other favorite foreign trees,—besides being unaffected by the summer sun where Horse-chestnuts are burned brown,

and holding their foliage through all the season like native-born Americans, when foreigners shrivel and die; and yet we could name a dozen nurseries where there is a large collection of ornamental trees of foreign growth, but neither a sassafras, nor a pepperidge, nor perhaps a tulip tree could be had for love or money.

There is a large spirit of inquiry and a lively interest in rural taste, awakened on every side of us, at the present time, from Maine to the valley of the Mississippi—but the great mistake made by most novices is that they study *gardens* too much, and *nature* too little. Now gardens, in general, are stiff and graceless, except just so far as nature, ever free and flowing, re-asserts her rights, in spite of man's want of taste, or helps him when he has endeavored to work in her own spirit. But the fields and woods are full of instruction, and in such features of our richest and most smiling and diversified country must the best hints for the embellishment of rural homes always be derived. And yet it is not any portion of the woods and fields that we wish our finest pleasure-ground scenery precisely to resemble. We rather wish to *select* from the finest sylvan features of nature, and to recompose the materials in a choicer manner—by rejecting anything foreign to the spirit of elegance and refinement which should characterize the landscape of the most tasteful country residence—a landscape in which all that is graceful and beautiful in nature is preserved—all her most perfect forms and most harmonious lines—but with that added refinement which high keeping and continual care, confer on natural beauty without impairing its innate spirit of freedom, or the truth and freshness of its intrinsic character. A planted elm of fifty years, which stands in the midst of the smooth lawn before yonder mansion—its long graceful branches towering upwards like an antique classical vase, and then sweeping to the ground with a curve as beautiful as the falling spray of a fountain, has all the freedom of character of its best prototypes in the wild woods, with a refinement and a perfection of symmetry which it would be next to impossible to find in a wild tree. Let us take it then as the type of all true art in landscape gardening—which selects from natural materials that abound in any country, its best sylvan features, and by giving them a better opportunity than they could otherwise obtain, brings about a higher beauty of development and a more perfect expression than nature itself offers. Study landscape in nature more, and the gardens and their catalogues less,—is our advice to the rising generation of planters, who wish to embellish their places in the best and purest taste.

PREMATURE DECAY OF THE PEACH TREE.

BY J. P. KIRTLAND, CLEVELAND, O.

Fifty years since the peach tree grew vigorously, and almost spontaneously, in many sections of New-England, where the soil and climate were congenial. In more recent times, it has flourished with equal vigor in many parts of the western country, particularly the state of Ohio.

It has required no special powers of observation to discover that it has been gradually losing its healthfulness—till at length it cannot be cultivated without extra care. The

progress of this diseased condition has evidently advanced farther in the eastern states, than in the newer and more fertile regions of the west.

A knowledge of the pathology of a disease, whether in the animal or vegetable kingdom, often leads to the discovery of successful means of cure. With this view, attention has been directed to the nature and causes of this disorder. So far as they have been discovered, they seem to be dependant on the following, "*to wit*:"

1st. *The depredations of the Ægeria exitiosa*, or *Borer*.—The first stage of impairment was probably ertablished by the attacks of this insect. It was known as early, or before the commencement of the present century, yet it was then met with only in limited numbers, and its depredations hardly attracted attention. At this time it has become so numerous that every peach tree is annually assailed by from half a dozen to a dozen individuals, in the larvæ state.

They perforate the crown of the roots, and excavate it so extensively as to nearly cut off all communication with the body. Before the injury they inflict in one year is corrected by the growth of the ensuing season, a second generation renews the attack. The tree finally sinks under repeated injuries, or perhaps spins out a sickly existence for a few years.

2d. *Exhaustion of the Soil*.—No species of tree, shrub, or vegetable, can retain health, vigor and productiveness, without a requisite supply of inorganic elements in the soil. Few soils originally contain supplies sufficient to sustain a successive growth of the same species of trees, in the same locality. When a forest is suddenly removed, its place is sure to be occupied by a different growth of timber, and an attempt at cultivating the same kind of crop upon the same field, repeatedly, is sure to be met with manifestations of exhaustion, in the form of disease and unproductiveness.

Such evidences are now too common with the peach tree, when it is planted on soils exhausted of the essential elements. The doctrine is not perhaps exploded, that the excretions of vegetables exert an unfavorable influence on a succeeding crop of a similar kind. If it be correct, it may aid in throwing light on the nature and causes of the decay of the peach tree.

3d. *The Curl of the Leaf*.—Of late years, the first developed leaves in the spring season, become diseased with a spongy and malignant growth, which, in a few days' time, occasions them to fall. This occurs at a period when the vigorous circulation of the sap requires a corresponding action in those important organs. A second growth is soon forced out, which ultimately restores the tree apparently to its wonted health and vigor.

It is, however, evident, that though the recuperative powers of nature may for once, twice, or even thrice, restore a growth of leaves, the shock must at length impair the vitality, and induce an unhealthy condition. This curl of the leaf is produced by the punctures of a small plant louse, perhaps the *Aphis persica*, or its analogue. It is described by Dr. HARRIS in his Treatise on Destructive Insects, also in KOLLAR'S work, to which the reader is referred.

People judging of the size of this insect from the extent of its injurious impressions, might overlook it, expecting to find a huge monster where a mite exists, or very likely by searching for it long after its day and generation had passed away.

4th. *The Yellows*.—It is questionable whether anydistinct disease occurs, to which this name is applicable. Perhaps it is only a collection of symptoms arising from causes previously noticed—acting either individually or collectively. Facts seem to favor this view—though the insight of popular opinion is in favor of its being a *specific* and *contagious* disease.

In estimating the power and extent of the operation of these causes, it should be recollected that an injurious impression acting constantly upon successive generations, of either animal or vegetable species, may ultimately establish an hereditary entailment, that may be propagated in the form of predispositon to disease, or disease itself. The converse is equally true in producing health or physical development.

These several causes have been exerting their influences on the peach tree for a long term of years—impairing the stamina and health of its fruit germs. These impressions have been propagated and repropagated, in conjunction with the action of the primary causes of impairment, till at length we have only a sickly progeny.

If this view be correct, we have two indications to fulfil in working a cure.

First. To withdraw or counteract the primary causes of impairment.

Second. To propagate only from healthy pits.

Let us begin with perhaps the main cause—

Ægeria or *Borer.*—This depredator can only be assailed with succes by preventing the deposition of the egg into the crown of the root, or by the destruction of the larvæ after it has hatched. Embankments of earth, lime, ashes, tobacco, &c., have been tried for these purposes, but with not very perfect success. During a late tour to the eastern states, I had an opportunity of seeing the results of the use of a remedy devised by E. M. Pomeroy, Esq., of Wallingford, Conn. He seems to have found an application which is sure to prevent the perfect insect from laying her eggs in the crown of the roots—the only point at which it can exist and do injury—and is equally certain to destroy the larvæ which may have already commenced their career of destruction. The cost and labor of its use are very trifling. Further trials are necessary, to test its certainty. As the discoverer has laid his claims before the Commissioner of Patents, at Washington, I shall say nothing more in regard to it—only expressing the belief that it will prove successful.

The *second cause*, exhaustion of the soil, must be corrected by the aid of agricultural chemistry. Lime, ashes, bone-dust, salt, barn and poultry manure, &c., empirically applied, will generally correct the evil. No tree pays better for high feeding than the peach, on a silicious soil.

The *third cause, the Aphis*, seems to be beyond control where it exists in large orchards. It may be destroyed on a few trees by whale-oil soap-suds, and tobacco water.

The *fourth cause, the Yellows*, I must leave for the investigation and management of those among whom it occurs. Fortunately, little is known of it in Ohio. For the purpose of propagating healthy stocks, pits of the peach should be obtained from sections of the country where this diseased condition does not prevail. J. P. K.

Cleveland, Ohio, Oct. 8, 1851.

Remarks.—Professor Kirtland's remarks are closely to the point, and are particularly well timed. We pointed out, five years ago, that the peach tree was becoming enfeebled by bad cultivation, and careless propagation—and the fact cannot be too strongly urged upon nurserymen and orchardists. In fact, the peach has hitherto been cultivated so carelessly, that to an European fruit-grower it would not be called cultivation at all—only a downright abuse of the natural powers of the tree. It is, however, leading to the inevitable result of artificial degeneracy, and henceforth it will require something like attention and care to produce good peaches. Ed.

THE WILLIAMSON PEAR.

BY H. WOOD, LONG-ISLAND, N. Y.

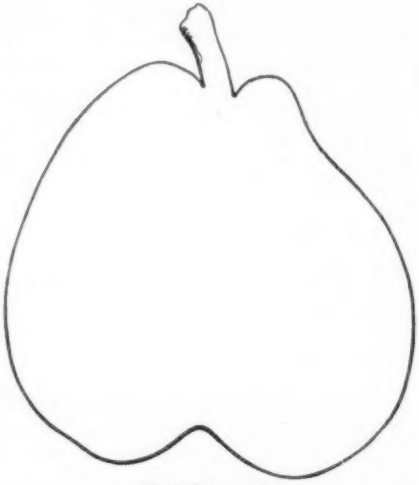
A. J. Downing, Esq.—I send you by express, two specimens of a seedling pear, which sprung up wild in a piece of woodland on the south side of Long-Island, belonging to Nicholas Williamson, Esq. The tree attracted no attention until Mr. W., having occasion to clear the timber from the land, left it exposed to the sun and air, when it soon commenced bearing.

There can be no doubt of its being a natural seedling, but whether it is an acquisition of any value, I leave you to determine. Many believe our American seedlings will prove more hardy and profitable than the delicate foreign varieties in cultivation; and I think I have seen remarks of your own to that effect.

The tree appears quite hardy, is a good grower and bearer.

Mr. W. has sold the fruit at high prices in Fulton market, and those who had it once invariably desired to purchase it again, having readily retailed them for sixpence each.

The specimens sent are not above the average size of this fruit. The tree stands in sod ground, and has never been manured or cultivated in any manner.



The Williamson Pear.

You will observe that these specimens show no calyx; this is a distinct characteristic of the fruit, so far as I have observed, and must decide the originality of the variety. Should you think it worthy of publicity, I propose to christen it the "Williamson Pear." From my knowledge of the gentlemanly owner of this tree, I am confident he will be happy to supply you with grafts, should you desire to obtain the variety. Yours, H. Wood.

Brambleworth Cottage, Oct. 2, 1851.

We are a little reserved in our praise of new varieties—but there can be no hesitation in pronouncing this pear one of the very best. The flavor is of the rich saccharine-vinous, well known in such fruits as Surpasse Virgalieu, Beurre Bosc, &c. The fruit has a rich yellow color, abundantly sprinkled with russet dots, and has a "thorough-bred" look and taste in all respects. Cultivators will do well to get possession of what appears to be a new American sort of such a high grade.

The following is the pomological description of the fruit: Medium size—obovate, narrowing pretty rapidly to the stalk. Stalk, short and stout, set in a moderate cavity—which is a little higher on one side than the other. Calyx, none—its place is occupied with a small scar—set in a deep, rather narrow, russeted basin. Skin, rich golden yellow at maturity—thickly sprinkled with russet dots—and considerably russeted at each end. Seeds, small and flattened. Flesh, yellowish white, fine grained, melting, (though more solid in texture than most melting pears,) with an abundant juice, and a rich sugary, and vinous flavor—October. Ed.

ON THE LIMITED DURATION OF VARIETIES OF PLANTS.*

BY JOHN TOWNLEY, MOUNDVILLE, WIS.

Dr. LINDLEY next touches on the apple; fortunately he has referred to three English varieties which are supposed to be in the winter of their age; the Golden Pippin, Golden Hervey, and the Red-streak. Respecting the Golden Pippin, he states that healthy trees were many years since shown to exist in Norfolk, and in warm dry, places this variety has no particular appearance of suffering. Trees of it are growing vigorously in Madeira. It is also growing in France, whence trees have been brought to England, which are said to be recruited by the fine dry climate of the former country, and this is considered to be a conclusive answer to Mr. KNIGHT's hypothesis. Previously, however, to arriving at this positive conclusion, Dr. LINDLEY should, if only out of respect to the "memory of THOMAS ANDREW KNIGHT," have considered, and frankly stated, that he had anticipated what would be the effect of such like circumstances on the health of aged varieties. Mr. KNIGHT observed, that they seemed like invalids, to enjoy the benefit of a better climate—that a gravelly, or a wet soil, or a cold preceding summer, or a high exposed situation, adds much to the virulence of the disease; on the other hand, he states "it appeared probable that the latter period of the existence of the apple tree *would be considerably prolonged in a southern climate*, for all the old varieties succeeded best in warm situations, and the most diseased flourish with the greatest vigor when trained to a south wall." And yet with such observations as these by Mr. KNIGHT on record, Dr. LINDLEY would fain persuade us, that because trees of the Golden Pippin, in a comparatively healthy state, yet exist in France and Madeira, and in warm dry places in England, therefore this variety is not declining in vigor, and wearing out.

The Golden Pippin was formerly a general favorite. Mr. KNIGHT, says,† "it was very extensively planted in Herefordshire, before the end of the 17th century, and many very large orchards of it still remained in the middle of the eighteenth century; and as long as the tree possessed even a moderate degree of health and vigor, the Golden Pippin retained the character of a very prime cider apple. But owing to the debilitated state of the variety in which the vital principle seems nearly expended, much of the fruit generally remains imperfect and immature, and almost all the cider which it has afforded within the last twenty years, has been crude or thin, and very frequently acetous. No attempts to propagate it as a cider apple, are now made in Herefordshire, though many trees of it of very large size, still remain." If this apple was formerly grown with so much success, and was so highly prized for its qualities in Herefordshire, and if varieties of plants do not in the course of time become debilitated, and more susceptible of disease and injury from adverse influences, then why in the name of common sense, does not the Golden Pippin now flourish, yield excellent cider, and grow to a tree of very large size, in the same soil, the same climate, and with the same treatment, and still continue to be a universal favorite in that county?

It cannot, I think, be reasonably objected in this case, that the soil was probably exhausted of some particular aliment necessary for the healthy development of this apple. New orchards are not always planted on the sites of old ones; and if new land had the power of restoring this variety to health, so striking and much-wished-for a result must have been apparent to the most ordinary observer, and have become generally known.

* Continued from p. 476.—† Knight's Pomona Herefordiensis.

Besides, change of soil was one of the expedients specially resorted to with a view to restore old varieties to health, and proved to be inefficient, and the fact, moreover, that trees of the old varietes grow well when trained to a south wall, indicates, I think, most clearly, that it is not the soil, but the vitality of the plant, which is at fault. When the feeble powers of the plant are stimulated by the greater amount of heat afforded by a wall, it is enabled to obtain from the soil sufficient material to enable it to grow with apparent vigor, while in the same soil, as a standard, it is decrepid and diseased.

Respecting the Golden Hervey, Dr. LINDLEY says it is in all good gardens. This may be so; as Mr. KNIGHT says, "the trees of the Golden Hervey still posses a considerable share of health and vigor, and for culture in the garden only, it is not much impaired by age."

Of the Red-streak Dr. LINDLEY says "it is little known to him, and he has no evidence about it." But if varieties of the apple do not deteriorate and wear out, how is it that this, once the most famous cider apple known, is now all but extinct? Now it is of importance to prove that varieties of plants which were propagated by extension, and have disappeared, or nearly so, formerly possessed such a combination of good properties as to make it highly desirable to continue them for ever if possible.

That the Red-streak was held in great estimation may be inferred from PHILLIPS' poem named "cider."

> Let every tree in every garden own
> The Red-streak as supreme, whose pulpous fruit
> With gold irradiate, and vermillion shines.

EVELYN speaks of it as "the famous Red-streak;" and again, "the Gennet Moyle was preferred to the very Red-streak." "The Moyle of sweetest honied taste." It is also apparent by other remarks, that EVELYN considered the Red-streak had no rival in this or any other country. With regard to health and productiveness, EVELYN observes, "the Red-streak will at three years old grafting, give you fair hopes, and last a hundred years, if from sundry men's experience of more than sixty years, we may divine." When comparing the merits of the Golden Pippin with the Red-streak, he says of the former, "it is in no wise so proper for a cider orchard, not half so soon bearing, nor so certainly, nor in that quantity, nor in that fulness or security, for as it (the Red-streak) is no tall tree, so it is less exposed to blasts and the like." Then respecting the quality of its cider. In papers on cider and cider apples, published in Evelyn's Pomona, one writer says, "among cider apples the Red-streak bears the bell." Another observes, "the cider of the summer Red-streak is of a wonderful fragrant and aromatic quality." Evelyn mentions that a Mr. TAYLOR of Herefordshire challenged a London vintner that he would produce a cider which should excel his best Spanish or French wines—"the wager being deposited, he brings in a good Red-streak to a private house, and all the vintner could call to be judges pronounced against his wine." The vintner not being satisfied, two other wagers were entered into, but with a like result. Now for evidence of the decline of this once famous apple. In MARTYN'S edition of MILLER it is said, "the Red-streak so much celebrated by writers of the last century, appears almost to have survived its fame as a cider apple." Mr. KNIGHT in his Pomona Herefordiensis observes, "trees of the Red-streak can now no longer be propagated, and the fruit, like the trees, is affected by the debilitated old age of the variety, and has in a very considerable degree, survived those qualities to which was owing its former fame; the cider which has been made of it alone, within the last thirty years having rarely proved good." Here then we have most satisfactory proofs of a once famous apple; handsome, hardy, productive, and affording

cider of surpassing excellence; having become feeble, diseased and almost if not quite extinct. Such then, when they come to be examined, are the facts and arguments advanced by Dr. LINDLEY in support of his assertion that "there is not only no proof of the correctness of Mr. KNIGHT's theory, but the strongest presumption to the contrary."

As in the case of the natural death of forest trees, the facts are too numerous and too well authenticated, proving that valuable varieties of plants propagated by extension, have ultimately become diseased and unproductive, and consequently extinct.

DR. LINDLEY thus explains these facts—"a tree is allowed from some cause or other to become unhealthy, a piece cut from it and put upon another tree, carries its disease with it; when again divided, the disease is again propagated; and this will go on so long as the unhealthy plants remain exposed to the circumstances which originally caused their bad health."

Adverse circumstances certainly tend to make plants unhealthy, and a variety of apple which has been in existence two hundred years is likely to have been exposed to a greater amount of damaging influences than a variety which has been in existence only fifty years; therefore we may reasonably conclude that the old variety, owing to the effect of these adverse external influences alone, will be less healthy than the younger variety.

Dr. LINDLEY may tell us that disease does not arise from internal but external circumstances. But the question will intrude, how are we to avoid these circumstances? what is "the some cause or other" which makes them unhealthy? If the plants of a variety in a certain locality only become diseased, then we might have some grounds for hope, but when we remember that of the apples mentioned by PARKINSON, the names only remain, and when we now know that old varieties of the apple and pear decline in vigor and productiveness, first in cold wet ungenial soils; lastly in warm dry situations, how are we to prevent this? "Change the circumstances; keep off the cause of the evil and the evil will gradually disappear as in the case of the Golden Pippin." Are we then to establish a plant hospital in the South of France or in Madeira; what other means are we to resort to, seeing that the Golden Pippin is the only instance mentioned of trees of an almost worn out variety existing in a comparative state of health.

The duration of both animal and vegetable life depends upon the original vigor of the constitution as well as adventitious circumstances. There are inherent as well as external influences with which we have to contend. Thus of human beings; many die in infancy, others may live a century. Of ten thousand born, hardly one may die through exhaustion of vitality, or sheer old age,—I mean, without the exhibition of any active disease. Again, of two children born with equally vigorous constitutions; one whose constitution has been subject to many trials may die in forty years, whilst the other more favorably circumstanced may live double that time. In like manner individual seedling plants differ greatly in constitutional vigor. Some we find are so weak that the first adverse influence to which they may be exposed destroys them, whilst other plants of the like kind and age, growing under the same circumstances, remain unharmed. Why is this? Because of the difference in constitutional vigor. Some external influence may have been the immediate cause of death, but the inherent feebleness of the plant was the predisposing cause which led to its destruction. So of plants with originally vigorous constitutions; few may die simply of exhaustion of vitality, and a tree in the prime of its existence may become unhealthy and diseased from various external causes; the soil may be wet or otherwise unsuitable, the roots may wander into an ungenial subsoil, or the leaves in an adverse season may be attacked by fungi, &c. But improve the soil, replant the trees and prevent their roots from reaching the subsoil, or let the fungi disappear, and the plants

being sound at heart, if I may so speak, will, owing to their inherent strength be restored to better health, exactly as in the case of animals in the prime of life laboring under local or transitory circumstances affecting their health. But we may graft a scion of an old nearly worn out variety on a healthy young stock, we may plant it in a situation where trees of the same variety continued, previously, in health and vigor upwards of a hundred years and where younger varieties now grow healthy and vigorously, but "the young stock," as Mr. Knight observed, "can give nutriment only, not new life;" it is found therefore, that the feeble scion, like a weak seedling, soon shows symptoms of disease. If it be objected that external influences first caused the feebleness, this may be said as reasonably of the infirmities of age in animals. It is inherent weakness in both which renders the attack of ordinary external influences formidable.

When a variety of apple or potato has arrived at the best and most productive period of its existence, is it rational to suppose or expect that the ingenuity of man can keep it stationary forever, and prevent its decline? The inherent, and many of the external influences which lead to debility and death, are beyond the control of man; and every adverse influence to which plants or animals are exposed, contributes more or less, to prostrate and wear out the constitution; and the power of external influences increases in proportion to the diminution of vital power. Man, by various expedients, may postpone the evil day, but he cannot prevent its coming. He may, for instance, betake himself to Italy or Madeira, in order to bolster up his feeble constitution, and he may take plants of his favorite old invalid fruit trees, with him, as a warmer climate is found to be as beneficial to them as to him, and both may return to their native land considerably fortified, but certainly not restored to the vigor of youth.

Proofs of the degeneracy of varieties of the potato, are too numerous to admit of doubt. The changes induced in a variety by time, are, I believe, very accurately described by the editor of the Irish Farmer's Magazine.* "In a few years," he observes "after a variety has been raised from seed, it arrives at its greatest degree of productiveness; then it continues annually, for a number of years, to decrease in productiveness, but to become more valuable for food, being more farinaceous, or as it is termed, drier; afterwards it begins to lose this quality, also, and rapidly to decline, until in a few years more, it is utterly useless." Dr. LINDLEY offers an explanation of these facts also, which he wishes us to substitute for that of Mr. KNIGHT; "a potato forced in such land," he observes, "has a feeble constitution, and a small matter makes it ill; its unhealthiness is communicated to its successors, and so the evil is ceaselessly augmented." He further remarks, "after six months unnatural treatment during winter, the tubers are committed to the ground, and though we have no reason whatever, to connect this practice with the blight, it is impossible to doubt that such a practice, long persevered in, must have a tendency to diminish the constitutional vigor of the crop." The remedy proposed is to raise potatoes for sets upon a different principle from those which are for the table; they must be grown in poor, light land, left in the ground undug during winter, or planted in autumn, or if taken up and not planted in autumn, they must be thoroughly greened and packed in sand. And we are to comfort ourselves with the belief that these means are sufficient to restore the potato to its primitive vigor, and that it is nonsense to think of troubling ourselves by raising new varieties from seed.

Can it be considered probable, that this method of renovating the health of aged or diseased varieties of the potato, should have escaped the attention of Mr. KNIGHT. He knew well the pernicious effects on the progeny of over-feeding our domestic cattle, with a view

* 1834, p. 340.

to premiums, as one of my letters from him testifies, and doubtless no man was better aware of the injurious effects of an excess of food and other influences on plants. Then consider the attention which he obviously paid to the culture of the potato, the unusual care and diligence with which he conducted all his inquiries, and the anxious desire he ever manifested to arrive at the truth, by repeatedly trying experiments from which he suspected results unfavorable to the conclusions at which he had arrived. The object, moreover, which he constantly had in view, was utility. To be useful to his country and fellow men, by discovering important truths in cultivation, was the aim of all his inquiries. Yet, with such qualifications as these, and when near the close of his invaluable labors, and after fifty years, at least, of experiments and observations on plants, Mr. KNIGHT said, "I have, in several instances, tried to renovate the vigor of old and excellent nearly expended varieties of the potato, *by change of soil and mode of culture*, but I never in any degree, succeeded; all became unproductive and worthless." Yet, notwithstanding, Mr. KNIGHT, with his profound knowledge of the laws of vegetable life, and his great skill as a cultivator, was foiled in his repeated endeavors to re-invigorate old varieties of the potato; the peasantry of England were seriously told, that to think of renovating the potato crop, by raising new varieties from seed, was a dream, and that if they would only adopt certain methods, they might restore old varieties to health and vigor, and so continue them healthy and vigorous forever.

The failure of Mr. KNIGHT and others, to restore old varieties of the potato to health, is not the only ground for doubting the efficacy of the means recommended by Dr. LINDLEY. If the feebleness of the constitution, or the wearing out of varieties were a consequence chiefly of their being grown in too rich land, or frequently repeated on the same land, surely garden varieties should have been short lived, and most subject to disease, for gardens generally are much more highly manured than fields, and there the crop is most frequently repeated. But early varieties seem upon the whole, to have been more free from disease than late, or field varieties, and I am inclined to believe that as a general rule, they continue in a healthy and useful condition for a much greater length of time, owing to the non-production of blossoms and seeds. These do not, moreover, have the same high farming in other countries as in England, of late years; and in England, what may be called high farming, is even now the exception, and not the rule. Much of the arable land in the first settled parts of the United States, is well known to have been considerably exhausted by taking repeated white crops, without making any adequate return to the soil, in the shape of manure, yet the blight of the potato has been fully as virulent in the United States as in England. In this section of the country, the potato has been grown on land first broken up two or three years ago, and to which, in many instances, no manure has been applied, but the crops are blighted, our plants are now nearly destitute of foliage, and in many cases a very considerable proportion of the tubers has already decayed.

Varieties of the ranunculus and anemone, which are propagated by their tubers, are also exempt from many of the causes which Dr. LINDLEY says must be avoided in the future cultivation of the potato, with a view to restore it to health. The tubers of these plants are not gathered into heaps, and suffered to heat during winter; they are not allowed to grow before planting in spring; consequently no useless sprouts are rubbed off; they are not planted on raw manure, nor are they cut into sets; therefore there is no loss of sap, or danger of injury from external causes arising from that practice. Yet, notwithstanding these disadvantages, and notwithstanding the care and skill bestowed upon them by the ardent florists, varieties of these plants unquestionably degenerate and wear out.

One of the first authorities on the ranunculus, the Rev. Mr. TYSO, a gentleman who has raised thousands of this beautiful flower from seeds, observes that "the longevity of the ranunculus has been variously stated. Some of the finest seedlings are weak, and therefore die in a few years, though for a time they had great renown; others of first rate character, are remarkably strong, and increase abundantly. A variety may be perpetuated about a century. Many of the varieties standing high in the esteem of florists forty years ago, are fast declining in numbers and energy; they now blossom less frequently, or produce smaller blossoms. Seedlings possess all the luxuriance and vigor of youth, and produce larger and finer blossoms than the old varieties."* Similar observations might be quoted from papers in the Gardener's Chronicle, by Dr. HORNER, Mr. R. LYMBURN, and other cultivators of this flower.

Another high authority in these matters, minutely describes the effects of age on varieties of the anemone. "The constitution of anemones," says Mr. MADDOCK,† undergoes considerable changes with age, which is, perhaps, in a greater or smaller degree, the case with all other vegetables. The anemone will not last over twelve or fifteen years without degenerating, unless it be frequently removed to a different soil and situation; nor will any removals protract or prolong its existence more than thirty or forty years. It generally blooms in the greatest perfection from the fifth to the tenth or twelfth year, after which it gradually becomes smaller and weaker, and if the flower was originally full and double, with age it loses that property; the petals diminish in number, become small and irregular and finally, the sort perishes. It has more than once occurred, that the same variety, although in the possession of many persons residing at remote distances from each other, has been entirely lost in one season, without the possibility of accounting for it in any other manner than the above."

Mr. KNIGHT's hypothesis seems indeed to be based on such numerous indisputable facts, the results of repeated experiments and observations by himself and other practical men, that I could scarcely have believed any serious objection would be urged against it at the present day, by any man whose opinion is entitled to respect. LOUDON, who was so decidedly opposed to it at one time, very nearly coincided with Mr. KNIGHT's views lately, as your extract from the Suburban Horticulturist indicates. In the life of Mr. KNIGHT, prefixed to the published collection of his Phys. and Hort. papers, it is said: "Mr. KNIGHT's hypothesis was so contrary to generally received opinions, that it at first met with considerable opposition; but the increasing decay of the old fruits, even when grafted on the most vigorous stocks, and the superior healthiness of the new varieties produced from seed, has caused Mr. KNIGHT's theory to be almost universally adopted."

Dr. LINDLEY has indeed himself placed on record the most decided opinion in favor of this hypothesis,—that there is some analogy between vegetable and animal life; that varieties of plants do become feeble and less productive as they become old. In an article in the Gardener's Chronicle of the 6th of September, 1845, he said, "raising seedling potatoes is a practice upon the importance of which we have frequently insisted. All old varieties of those cultivated plants which are propagated by division of the stem and not by seeds, seem to decline as they grow old, there being some analogy in this respect between plants and animals." In the Gardener's Chronicle of March 1, 1845, Dr. LINDLEY, in an article on the potato said—"finally let us point to the *immense importance* (the italics are his own) of renewing the vigor of potatoes by raising new varieties from seeds; this has been tried over and over again, and always with some advantage; sometimes with a great deal. It is certain that the productive quality of a given variety of the potato is in

* Gard. Chron., June 22, 1844, and Tyso's Pamph. on the Ranunculus.—† Maddock's Florist's Directory.

proportion to its youth, and that all varieties cease, after a few years, to be as productive as they once were. When Mr. KNIGHT'S seedlings were originally tried, they yielded in one case at the rate of 68 and 70 for one; no such crops can now be obtained from them."

In the fall of that year, 1845, the blight of the potato was first extensively developed in England, and Dr. LINDLEY with two eminent chemists were appointed on a commission by the government of the late Sir ROBERT PEEL, to inquire into the cause and suggest a remedy. Considering that I had good reasons to be disatisfied with their explanation, and that a more truthful view of the whole cause had occurred to me, I sent three letters to the London Morning Herald, stating my views as to the nature of the malady, and showing that the commissioners were in error in concluding that the disease was of a temporary character; that their explanation was not adequate to account for it, and that their remedial measures alone could not possibly prove efficient.

I need hardly say that time has abundantly proved my objections were well founded. In the article on the 20th of Dec., 1845, Dr. LINDLEY, when objecting to my notions in the matter said, "we regard the notion that the races (varieties) of plants wear out, as utterly baseless and visionary. The health of the potato is not, with any certainty, to be increased by raising new varieties from seeds. The idea of renovating the potato crops of Europe by raising new varieties from seed is a dream. We advise growers not to indulge in a vain hope that seedling varieties will be any better than what they now have." May I not well ask, if in March and September, it was *certain* that in the course of time the produce of varieties diminishes, and they become feeble as they grow old, what had occurred since; what new light had there been thrown on the subject, that these opinions should in December be denounced as "utterly baseless and visionary?" If in March and September, renewing the vigor of potatoes by raising new varieties from seeds, was a point of *immense importance*, a practice always attended with some advantage, why in December should the idea of renovating the health of the potato crop by raising a succession of new varieties from seed be pronounced a dream, and the hope that seedlings would be any better than those we now have be dismissed as vain?

Respectfully yours, JOHN TOWNLEY.

Moundville, Marquette county, Wis.

We commend Mr. TOWNLEY'S article—certainly one of the most interesting we have published in this Journal—to the perusal of our readers. ED.

PARLOR-FLOWERS IN WINTER.

BY H. W. BEECHER.

THE treatment of house-plants is very little understood, although the practice of keeping shrubs and flowers during the winter, is almost universal. It is important that the physiological principles on which success depends, should be fairly understood, and then cultivators can apply them with success in all the varying circumstances in which they may be called to act.

Two objects are proposed in taking plants into the house,—either simple protection, or the development of their foliage and flowers during the winter. The same treatment will not do for both objects. Indeed the greatest number of persons of our acquaintance, treat their winter plants, from which they desire flowers, as if they only wished to preserve

them till spring; and the consequence is, that they have very little enjoyment in their favorites.

Treatment of House-plants designed simply to Stand Over.—Tender roses, Azaleas, Cape Jessamines, Crape Myrtles, Oranges, Lemons, Figs, Oleanders, may be kept in a *light* cellar if frost never penetrates it.

If kept in parlors, the following are the most essential points to be observed. The thermometer should never be permitted to rise above 60° or 65°; nor at night to sink below 40°. Although plants will not be frost-bitten until the mercury falls to 32°, yet the chill of a temperature below 40° will often be as mischievous to tender plants, as frost itself. Excessive heat, particularly a dry stove heat, will destroy the leaves almost as certainly as frost. We have seen plants languishing in a temperature of 70°, [it often rising ten degrees higher,] while the owners wondered what could ail the plants, for they were sure that they kept the room warm enough!

Next, great care should be taken not to over-water. Plants which are not growing, require *very little* water. If given, the roots become sogged, or rotten, and the whole plant is enfeebled. Water should never be suffered to stand in the saucers; nor be given, always, when the top soil is dry. Let the earth be stirred, and when the *interior* of the ball is becoming dry, give it a *copious* supply, let it drain through thoroughly, and then turn off what falls into the saucer.

Plants designed for Winter-Flowering.—It is to be remembered that winter is naturally the season of *rest* for plants. All plants require to lie dormant during some portion of the year. You cannot cheat them out of it. If they are pushed the whole year, they become exhausted and worthless. Here lies the most common error of plant-keepers. If you mean to have roses, blooming geraniums, &c., in winter, you must, *artificially, change their season of rest.* Plants which flower in summer must rest in winter; those which are to flower in winter, must rest either in summer or autumn. It is not, usually, worth while to take into the house for flowering purposes, any shrub which has been in full bloom during the summer or autumn. Select and pot the wished for flowers during summer; place them in a shaded position facing the north, give them very little water, and then keep them quiet. Their energies will thus be saved for winter. When taken into the house, the four essential points of attention are light, moisture, temperature, and cleanliness.

1. *Light.* The functions of the leaves cannot be healthfully carried on without light. If there be too little, the sap is imperfectly elaborated, and returns from the leaves to the body in a crude, undigested state. The growth will be coarse, watery, and brittle; and that ripeness which must precede flowers and fruit cannot be attained. The sprawling, spindling, white-colored, long-jointed, plants, of which some persons are unwisely proud, are, often, the result of too little light and too much water. The pots should be turned around every day, unless when the light strikes down from above, or from windows on each side; otherwise, they will grow out of shape by bending toward the light.

2. *Moisture.* Different species of plants require different quantities of water. What are termed *aquatics*, of which the Calla Æthiopica, is a specimen, require great abundance of it. Yet it should be often *changed* even in the case of aquatics. But roses, geraniums, &c., and the common house plants require the soil to be *moist*, rather than *wet*. As a general rule it may be said that every pot should have one-sixth part of its depth filled with coarse pebbles, as a drainage, before the plants are potted. This gives all superfluous moisture a free passage out. Plants should be watered by *examination* and not by *time*. They require various quantities of moisture, according to their activity, and the

period of their growth. Let the earth be well stirred, and if it is becoming dry on the inside, give water. Never water by *dribblets*—a spoonful to-day, another to-morrow. In this way the outside will become bound, and the inside remain dry. Give a copious watering, so that the whole ball shall be soaked; then let it drain off, and that which comes into the saucer be poured off. But, in whatever way one prefers to give water, the thing to be gained is, a full supply of moisture to every part of the roots, and yet not so much as to have it *stand* about them. Manure-water may be employed with great benefit every second or third watering. For this purpose we have never found anything equal in value to *guano*. Besides water to the root, plants are almost as much benefitted by water on the leaf—but of this we shall speak under the head of *cleanliness*.

3. *Temperature*. Sudden and violent *changes* of temperature are almost as trying to plants as to animals and men. At the same time, a moderate change of temperature is very desirable. Thus, in nature, there is a marked and uniform variation at night from the temperature of the day. At night, the room should be gradually lowered in temperature to from 45° to 50°; while through the day it ranges from 55° to 70°. Too much, and too sudden heat will destroy tender leaves almost as surely as frost. It should also be remembered that the leaves of plants are constantly exhaling moisture during the day. If in too warm an atmosphere, or in one which is too dry, this perspiration becomes excessive and weakens the plant. If the room be stove-heated, a basin of water should be put on the stove to supply moisture to the air by evaporation. Sprinkling the leaves, a kind of artificial dew, is also beneficial, on this account. The air should be changed as often as possible. Every warm and sunny day should be improved to let in fresh air upon these vegetable breathers.

4. *Cleanliness*. This is an important element of health as well as of beauty. *Animal uncleanliness* is first to be removed. If ground-worms have been incorporated with the dirt, give a dose or two of lime-water to the soil. Next aphides or green-lice will appear upon the leaves and stems. Tobacco smoke will soon stupefy them and cause them to tumble upon the shelves or surface of the soil, whence they are to be carefully brushed, or crushed. If one has but a few plants, put them in a group upon the floor; put four chairs around them and cover with an old blanket, forming a sort of tent. Set a dish of coals within, and throw on a handful of tobacco leaves. Fifteen minutes smoking will destroy any decent aphis.

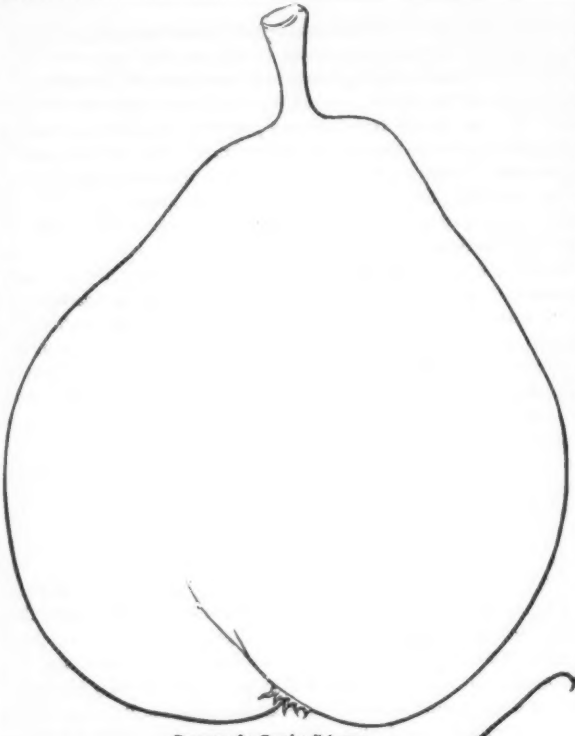
If a larger collection is on hand, let the dish or dishes be placed under the stands. When the destruction is completed, let the parlor be well ventilated, unless, fair lady, you have an inveterate smoker for a husband; in which case you may have become used to the nuisance. The insects which infest large collections in green-houses, are fully treated of in horticultural books of directions.

Dust will settle every day upon the leaves, and choke up the perspiring pores. The leaves should be kept free by gentle wiping, or by washing. H. W. B.

DESCRIPTION OF THREE NEW PEARS.

BY ANDRE LEROY, ANGERS, FRANCE.

We have had the pleasure of receiving from Monsieur Le Roy, of Angers, the following descriptions of valuable new fruits, which we take pleasure in presenting to our readers. M. Le Roy enjoys a well earned reputation as one of the most distinguished French cultivators; his nurseries, the finest in France—covering over an hundred acres, are favor-

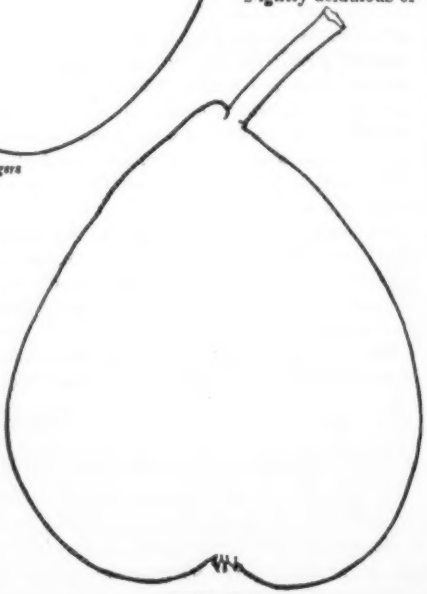


Doyenne du Cornice d'Angers

ably known in the United States. They embrace, among other things, a "School of Pears," where all varieties of merit are tested before being propagated in the nurseries—a feature which is now being adopted to a considerable extent in this country.

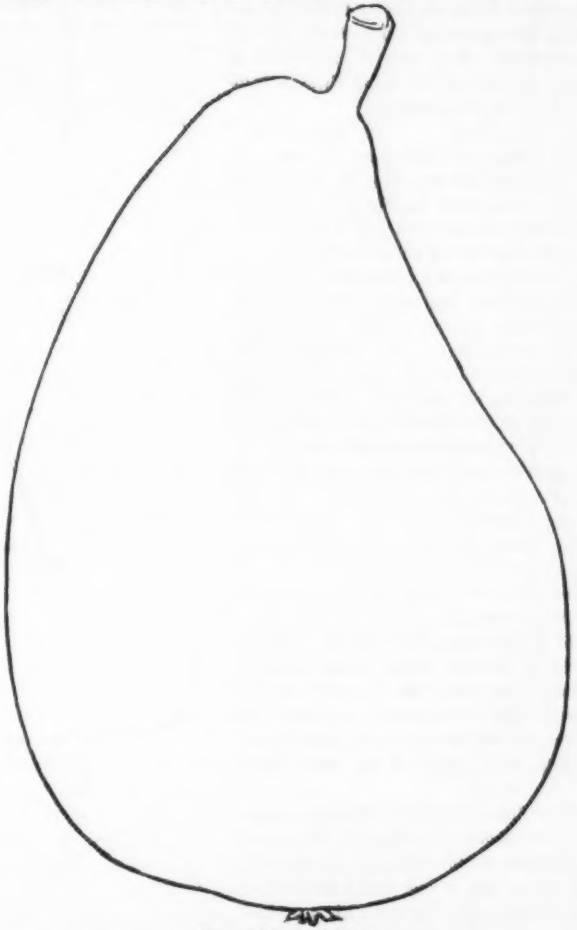
I. Doyenne du Cornice d'Angers. — Tree — vigorous, pyramidal shaped, productive; fruit—very large, regularly turbinate; skin—greenish yellow, speckled with russet dots; flesh-melting, buttery, juicy, sugary, agreeably perfumed; very delicious; ripens in November and December; raised from seed in the garden of the Horticultural Society at Angers.

II. Wiedow Pear.—The trees of this variety are of medium growth, pyramidal shaped, straight branched; the wood is short, stout; very productive; fruit—of medium size, regularly turbinate; the stem is slender, and obliquely inserted at the surface; color—yellowish green, covered over about half of the surface with dark gray spots, grayer on the sunny side. It resembles the color of Beurre d'Angleterre; skin—thin; flesh—white, very melting, buttery; juice—abundant, slightly acidulous or



Wiedow Pear.

vinous in flavor; agreeably perfumed and highly flavored. It is a delicious, first rate pear, and I do not know another equally good at this season, where we have so many kinds in ripening,—end of September and October. I do not know its origin.



Beurre Clairgeau of Nantes.

III. BEURRE CLAIRGEAU, (of Nantes.)—A very large fruit, irregularly turbinated; skin—yellow greenish, with dark spots; flesh—melting, buttery, juicy; resembles the Gray Doyenne; ripens in October and November. A vigorous tree; very productive, and forming fine pyramids. It is a handsome pear of first rate quality, raised from seed by Mr. CLAIRGEAU, at Nantes, (France,) and put in trade by the care of the Horticultural Society of this city. Yours very respectfully, ANDRE LE ROY.

Angers, France, 1st Sept., 1851.

DESCRIPTION OF ORNAMENTAL CRABS AND APPLES.

BY B. DESPORTES, ANGERS, FRANCE.

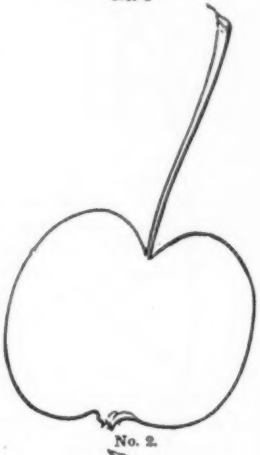
Mr. DOWNING—I take the liberty to forward you the following descriptions of our collections of apples for ornament. I beg you to give a place in your Journal to them, if you think them acceptable. I am very respectfully,

B. DESPORTES.

Among the numerous collections of ornamental trees and shrubs of any sort, that Mr. ANDRE LEROY cultivates in his large nurseries, there is a genus that we have not met with any where else so complete. It is this of the ornamental apples, including the series of Baccata, [Siberian Crabs.] All the following kinds are not eatable, except the Siberian Crabs, which are very suitable to make good preserves, but we use them more generally in the ornamental plantations of the parks and pleasure grounds. They are so productive that the fruits touch each other on the branches; their brilliant color makes them of the most ornamental objects. The fruit hangs upon the tree a very long time, and does not fall till after the frosts in November. We use the fruits very agreeably to decorate a desert table.

No. 1

No. 1. THE PURPLE SIBERIAN CRAB—*Baccata fructa purpurea* or *rosea*. Fruit, about one inch high, and one and a half broad, oblate towards the two extremities, roundish on the other side; stem, two-thirds of an inch long, slight slender, curvate, inserted within a profound cavity; color, beautiful reddish purple on the sunny side, covered with fine white flower like that of the plums, the shaded side is less brilliant, and all the surface is speckled with same gray dots; flesh, is like all the crabs, coarse and acerb.



No. 2.

No. 2. LARGE SIBERIAN CRAB—*Baccata macrocarpa*. Fruit, about one inch long and a little more in diameter, compressed towards the eye, roundish towards the stem; this is one and a half inches long, slender, almost right, covered with asperities towards the upper part. It is inserted within a narrow and deep cavity; eye small, closed outside of the surface, inserted upon some small wrinkles reunited together; color, rose violet on the sunny side, covered with a white bloom, and green on the shaded side.

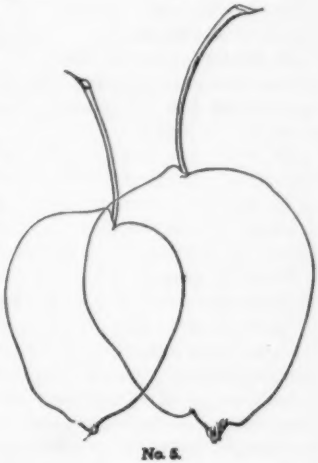
No. 3.

No. 3. STRIPED SIBERIAN CRAB—*Baccata fructa*

striata. Fruit, one-third of an inch high and one and a half inch in diameter; form, roundish oblate towards the eye, round towards the stalk; this is half an inch long, large at the upper end, obliquely inserted in a profound cavity; eye, small, closed; segments of the calyx united in a bundle; color, rose yellowish, red striped every where, carmine on the sunny side, more yellow towards the stem; covered with a fine white bloom. This is an extremely ornamental tree.

No. 4.

No. 4. Rouen Transparent Siberian Crab—*Baccata transparent de Rouen*. Fruit, about one inch high and one-third of an inch in diameter; form, oblate, compressed towards the eye, round towards the stalk, irregular; stem, slender, sometimes very long, ordinarily one and a half inches, curved obliquely, inserted in a deep but very wide cavity; calyx, small, inserted at the surface, between several small wrinkles; color, red carmine everywhere, except in the place wholly covered by shade, then the color is yellowish, covered upon all the surface with a white fine bloom, which makes it very beautiful and transparent.



No. 5.

No. 5. Oblong Siberian Crab—*Baccata fructa oblonga*. Fruit, one and a half inches high, and a little more than an inch in diameter; form, oblong or ovoid, irregular; a lip surmounts the insertion of a side of the stem, and another the eye; the stalk is long, slender, curved, larger at the upper part; calyx, small and almost wholly covered by the lip, and crowded by small wrinkles; color, red crimson everywhere, speckled with small gray dots; the time of ripening is earlier than for the other kind; this time arrives generally about the end of September. The figure shows two specimens of different size, of the same kind.

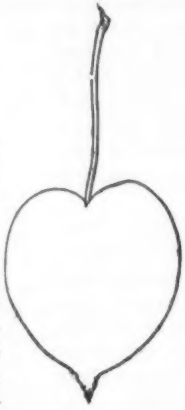
No. 6.

No. 6. The Double White Siberian Crab—*Flore pleno alba*. Fruit, three-fourths of an inch high, and one and a quarter inches in diameter; form, compressed, round, irregular, more swollen on one side than the other; stalk, one-third of an inch long, larger at the upper extremity, obliquely inserted at the surface; eye, large, even with the surface, closed; color, red carmine on the sunny side, green on the shaded side, covered with white bloom.

This kind is worthy of notice, not only by the fruits but by the flowers, which are large, double white rosy. It is a brilliant and very ornamental crab.

No. 7. The Fragrant Flowered Siberian Crab.—*Odorata*. Fruit, small, about three-fourths of an inch high

No. 7.



No. 8.

No. 9.

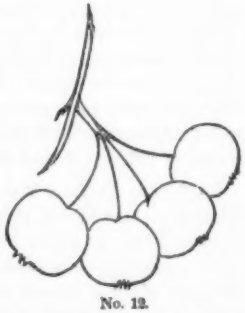
No. 10.

No. 11.

and one inch broad; form, compressed at the two extremities, rounder towards the stem than the eye; stalk, half an inch long, slender, right, inserted in a shallow cavity, but very open; eye, small, set in a cavity formed with small wrinkles; color, green everywhere, speckled with gray whitish dots. The flower is very fragrant; the odor is the same as that of the violet.

No. 8. Cherry Apple—Fruit, one inch high, three-fourths of an inch in diameter; form, ovoid, cordiform towards the stem, conic towards the eye; this is terminated by a small stalk, long, slender, curved; eye, large, projecting out of the surface, formed with a bundle of small wrinkles, crowded by segments of calyx; color, yellowish lemon uniformly, nevertheless a little spotted with red on the sunny side.

No. 9. The Showy Crab—*Spectabilis*. Fruit, about three-fourths of an inch high, and three-fourths of an inch in diameter; form, very irregular, almost square; stalk, three and a half inches long, larger at the upper part, large, fleshy at the base, inserted at the surface and crowded by wrinkles; eye or calyx, very broad, large profound segments, numerous and out the surface; the cavity is formed by small wrinkles, irregular; yellow color, slightly spotted with rose on the sunny side, speckled with white dots upon the surface.



No. 12.

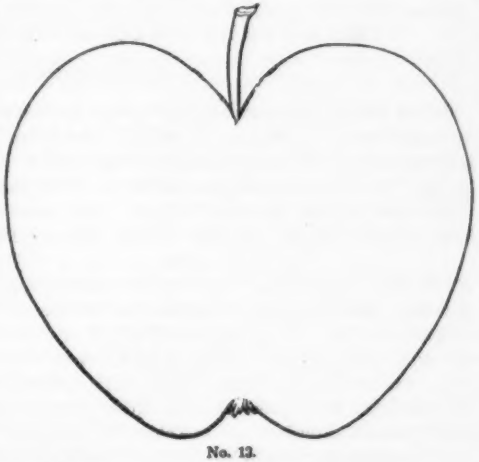
No. 10. Astracan, or Evergreen Apple Crab.—Fruit, two-thirds of an inch high, and three-fourths of an inch broad; form, oblate, compressed, irregular; stalk, short, one-third of an inch long, obliquely inserted in a shallow cavity, crowded on one side by a lip; eye, broad, formed by several small wrinkles out the surface; segments, long; color, deep green, speckled with white dots. The leaves are evergreen, and remains on the tree during the winter.

No. 11. The Double Flowering Crab.—Fruit, two-thirds of an inch high, and three-fourths of an inch in diameter; form, roundish, but very irregular; stalk, one inch long, larger at the two extremities; eye, very large, out the surface, formed with five small wrinkles united together, and terminated in a bundle by the segments of the calyx; color, rose violaceous on the sunny side, ashy green on the shaded side, covered with a white

flour on the rose color. It is very ornamental by its double white flowers in the spring.

No. 12. The Currant Crab —*Pomme groseille.* The fruits of this kind of apple are of the size of the currants, and are borne like them, in clusters. They are round, a little compressed towards the two ends; the stem is about half an inch long; the eye is large; red colored, slightly striped with deep red; it is ornamental in its flowers as well as its fruits.

I can add to the above list some other kinds, which are not less ornamental as trees of decoration in the pleasure-ground, and as desert fruits; nevertheless, they take place generally among the eatable fruits.



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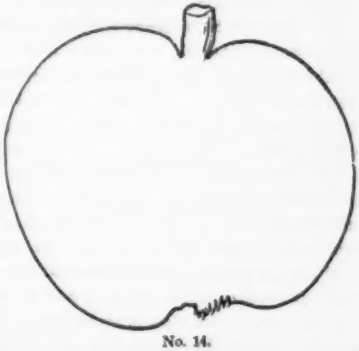

No. 14.

No. 13. Transparent de Zurich Apple. —Fruit of two inches high, and two and a half inches in diameter; form, obovate, larger towards the stem, and narrower towards the eye; stalk, slender, half an inch long, curved, inserted in a profound cavity; eye, compressed, closed, set in a wrinkled cavity; color, white, like the wax, of which this apple has the appearance, and the brilliant coloring, without the smallest spot; skin, very fine; flesh, white, like the snow, and not different from the skin; dry, acidulous; it is only of third rate, but I do not know another, a more pretty or more ornamental desert apple. It ripens in September and October.

No. 14. Black Lady Apple.—Fruit, one and one-third inches high, and one and three-fourth inches in diameter; form, roundish, irregular; stalk, short, inserted in a shallow cavity; eye, small, closed, set in a profound cavity; color, deep black everywhere, speckled with some gray dots towards the stem; flesh, tender, breaking, acidulous, first rate; ripens from November to March. It is very curious, and very suitable as a desert fruit.

I am very respectfully,

B. Desportes.

Angers, France, September 24, 1851.

STRAWBERRY HILL—A LESSON IN TASTE.

[SEE FRONTISPIECE.]

One of the most celebrated men of the last century, as every one familiar with English literature knows, was Horace Walpole. His literary talent, his love of art, his antiquarian taste, and his social position, all combined to make him one of the celebrities of his age. All reviewers admit that his letters convey the best *interior* picture of his time, that we possess, and they have a charm of style, and a flow of anecdote and wit, that have made them the most popular books of their kind for nearly a century.

When Walpole was in his prime, he retired to Twickenham, on the Thames, one of the suburbs of London. Here he purchased a property, and amused himself for twenty years in building a villa, which he called Strawberry Hill, and collecting a museum of antiquarian relics, and curiosities of all kinds. In this residence and its contents he spent vast sums of money, and exhausted all his taste and ingenuity in producing something unique and admirable. Having already ransacked Italy as a virtuosa, before commencing his building he made a tour through various parts of the kingdom, and collected models of the principal cathedrals and fine old gothic buildings. England had been saturated for two generations previous to his time, with so-called classical architecture, and Walpole, with his antiquarian taste, set about a revival of the taste for the ancient style.

The result in Strawberry Hill, is both amusing and instructive. It is amusing, since the house was at last only a caricature of gothic style—a kind of bastard imitation, or rather jumble of various eras of gothic architecture, without unity, harmony, or correctness of detail or proportion. Square headed labels are hung over pointed windows, pinnacles spring out of embattled parapets—and every species of absurdity of which the style is capable, seem to be assembled to keep each other company.

Strawberry Hill is instructive, because it shows very clearly that a man may have a great deal of knowledge, and abundant taste of a certain kind, and yet make an utter failure in attempting to become his own architect. If a man wishes to build a plain house—which shall express only a comfortable and convenient family residence, he may succeed well enough without any professional aid. But it is easier to compose a fine piece of music without having studied harmony and thorough basso, than it is to compose a large building, in a complicated style of architecture, without knowing a great deal more of the art than what is comprised in a mere love of the subject, and a smattering of knowledge of the details and plans of other buildings.

Strawberry Hill has been looked upon with favor by some critics, not as possessing intrinsic beauty, but as having drawn attention to the merits of the Gothic style, which had long been neglected in England. A writer in the London Quarterly, claims even more for Walpole. "He will probably be for ages remembered as the creator of a new style of architecture. Great discoveries are sometimes made from small circumstances, and the repairs and additions made to what was originally a little citizen's box at the corner of two high roads, revealed to Walpole the great secret of the combined beauty, convenience and grandeur, which a revival of our old English architecture was capable of producing. He honestly confesses that when he began to gothicise Strawberry Hill, he knew little about the principles of the style he adopted—all his earlier, and some of his later details, were poor, erroneous and inconsistent, and the whole, even after the author had finished it to his own mind, has been censured as a heap of littlenesses and incongruities. The description is just, but the censure is not so."

Another English writer gives the following description of Strawberry Hill, which accords entirely with our own impressions:

"A place more intrinsically paltry does not exist: dirty, dingy walls, rough coated with mortar and pebbles, and surmounted by *wooden* battlements, of which the founder himself outlasted three generations; bounded on two sides by the high road, with all its dust, noise and publicity; the rooms low, dark, and with the exception of the long gallery, devoid of proportion; the grounds limited to a very small space, and that limitation rendered still more conspicuous from the attempt to crowd into it temples, grottoes, and statuary; the only merit of Strawberry Hill is one with which HORACE WALPOLE had nothing to do, namely—the view of the river commanded by this piece of architectural gimcrackery.

"WALPOLE seemed altogether to forget, in what he chose to consider his restoration of the pure gothic, that the essential character of that style is grandeur and sublimity; and that without space and magnitude, all examples of castellated gothic, must be contemptible. The classic styles admit of being applied to buildings, either great or small; and seem to equal advantage in the Temple of Minerva or the Lanthorn of Demosthenes. But to the gothic, [where one goes beyond a mere cottage,] breadth and altitude are essential; and the attempt to illustrate its character and beauties in lath and plaster, at Strawberry Hill, has produced only a very ugly, fragile, and incommodious structure, destitute either of beauty or sublimity."

We have held up Strawberry Hill to public notice, because we have seen one or two instances of this kind of *virtuoso* amateur compilation on this side of the Atlantic. We could name one example, at least, where over one hundred thousand dollars have been spent in a private residence, in a miserable battlemented gothic style, most solidly and well built of brown sandstone—but hardly less tolerable in point of design, than Strawberry Hill. The owner was his own architect, disdaining all professional assistance, and with the aid of a few books on gothic architecture, and a good builder, has *hashed* up a building that he will most likely live to be ashamed of, as his friends now are, when he might have set a noble example of pure taste to aid the architectural genius of a young people.

MELONS AND THEIR CULTURE.

BY A. GERALD HULL, NEWBURGH, N. Y.

MUSKMELONS.—The rather flattering success which has attended my plantation of melons, contrasted with the failure of many neighbors, especially during the past season of unusual drouth, has elicited inquiries as to the *method;* to which I cheerfully respond, deferentially desirous of contributing even a mite to the rich treasury of modern horticulture. The *originality* mainly consists in *borrowing* hints and facts from every available source prior to experiment, in which many experienced cultivators will detect familiar features; so that the *method* in publishing phraseology, may be described as "a new edition, compiled from the best authorities, with emendations and suited to the requirements of the locality." It may be pertinent to state that the culture was in the open air, or exclusive of green-houses, frames or other mechanical expedients for forcing, insect protection, &c.

Planting.—Seeds, one and two years old, were planted dry, there being apparently no

difference in the size or quality of the melon on account of age of seeds. Firm, inverted sods, five inches square and two and three inches thick, were laid side and side over a well prepared hot-bed and two seeds were inserted into each piece. The whole plane of these inverted sods was dusted over with rich mould, which filled the interstices, and furnished an uniform surface to the seeds. Another season fine charcoal dust will be substituted. The advantages of the sod planting consist—in the selection of a southern and early germinating exposure by barn or wall; in affording ample time during the germination of the seed to prepare permanent beds; and in the specific quality of the turf in which the melon delights.

Beds.—The permanent beds or hills in the open ground were thus prepared, at intervals of six feet from their centres. Circular holes were dug out of trenched ground to the depth of twenty inches and two feet, with diameters varying from two to four feet. No special advantage was gained from the larger diameters. The lower halves of the holes were filled with equal parts of clay loam and *fresh* manure; the upper halves with the same loam and *old* manure. A compost was then formed of equal thirds of *poudretted muck*, (a barrel of Lodi poudrette thoroughly incorporated with a cord of muck)—*sand* and *virgin earth* or decomposed turf. This was spread above the filled holes forming hills, about five inches high with diameters of four feet. In previous years *ripe-manure* was applied instead of *poudrette*, with less satisfactory results.

Transplanting.—When the cotyledon, or two earliest leaves, of the seeds were fully developed, the sods were moved to their beds. Each sod was lifted with care, a broad trowel or sharp thin spade being the most efficient means for this purpose. The objections urged against this process, because of the sensitiveness of the plants when disturbed, need not obtain in a single instance if the sods be thick and firm and be not wantonly handled. Four sods were placed in each hill, about twelve or fourteen inches apart, forming the corners of a square, thus affording room for the free extension of the vines. If two plants were growing in a sod, as soon as the vigor of the major plant was determined, the weaker one was destroyed, allowing four vines to the hill.

Mulch.—Long litter has been my favorite mulch for years. This was freely applied until it filled the intervals between the hills quite close to the plants. The *moisture* of the earth was thus preserved, and, after a few rains, a clean, bleached surface of straw was furnished for the maturing melons. Foreign gardeners prefer flat stones to the bleached straw, and in nursing large specimens for exhibition or seed they will answer. This question evoked the following experiment. Two hills were carefully prepared, and planted with equal numbers of a hybrid of green Hosaince and Borneo melons. The one was mulched with long manure; the other was paved with stones. Both plantations, from their exposed situation, suffered from parching drouth. The long litter gained the preference.

In-heading.—I have followed the practice, which has obtained with careful growers, of pinching off the first blossom buds, which undoubtedly adds to the increase of lateral shoots, the vigor of the whole plant, and the size of the fruit.

Bugs.—Who can enumerate the expedients advised to extirpate these venomous pests! Snuff, tobacco water, soot, guano, lime, ashes, and the like have been essayed, and succeeded for the most part only when their too acrid form destroyed the plants! The *cucumber flea-beetle* (*Haltica pubescens,*) a hopping little black demon, generally infests the plants on the maturing of the cotyledon. I have temporarily succeeded in debarring the insects of this class from their plunder, by placing around the plants a cordon or circle of plaster of Paris well sprinkled with spirits of turpentine. The rapid evaporation of the turpentine, however, rendered its frequently required repetition too troublesome.

This annoyance induced me to profit by a hint, derived from the practice of Mrs. LOUDON, who expelled the aphides of her rose trees by a strong decoction of *quassia*. I directed four gallons of boiling water to be poured on four pounds of *quassia chips*, contained in a barrel. After twelve hours digestion the barrel was filled with cold water. This preparation, freely administered through a watering-pot, although it did not kill the black flea beetles, rendered the leaves quite unpalatable and every plant escaped harm from their attempted depredations. The *striped melon bug* (*Galereuca vittata*) usually follows the beetle. The application of the quassia water to the plants was continued, at the close of the day; and it was gratifying to find in it an immunity also from the assaults of the bugs of this kind. If the quassia water were omitted one or two days the return of these foes was injuriously manifest.

The most persisting enemy to the melon, devouring plants and fruit, is the *squash or pumpkin bug*, (*Corcus tristis.*) As long as the vines were damp with the quassi water, the bugs of this class made but trifling encroachments; soon as they were *dry*, they were again busy, disregarding the bitterness so much modified by evaporation. I then directed that a pound of common glue should be solved in water, and added to ten gallons of a quassi preparation of *double* strength. This glutinous liquid adhered to the plants, and molestation to both vines and fruit, thereafter ceased. The quassi water, in its strongest form, is perfectly harmless to nearly all vegetation, and especially of this tribe, which will allow the melon cultivator to increase its animal disturbing power to any degree consistent with economy. A plantation of Bermuda squashes was made on another part of the ground at some distance from the melons. The quassi water was *not* applied. The ravages of the pumpkin bugs were comparatively surprising. Mr. HOPE, the expert gardener of my neighbor, J. TUCKERMAN, Esq.,—had recourse also, to the quassi liquid, and attributes the injury and loss that occurred to some of his melons, to the omission of the same.

Another opponent to melon growers—the *white grub* or *cut-worm*—has never troubled me. Professor MAPES asserts, that *salt*, scattered around the plant, or incorporated with the soil, in the proportion of six bushels to the acre, will prove an effectual exterminator. Mr. SMITH, of Newport, in a former No. of this Journal, advises the covering of the beds with *charcoal powder*, for a protector.

Maturity.—Citron melon seeds were planted on the 3d of May; those of the Borneo, the 9th. They germinated within twelve hours of each other. The citron melons commenced to ripen freely about the 20th of August—104 days from planting. Mr. SMITH states, that his melons ripened in 112 days from planting, with his appliances of glass, brick squares, and milnet boxes. This allows an advantage to the open culture of six days.

Product.—The plot of ground occupied by the melons measured 40 by 180 feet. Sixteen hundred melons were produced. Wycoff's citron,* Borneo, and the true citron, were the varieties grown. The citron exceeded in sweetness and delicious flavor. The Borneo —a noble looking melon—which was excellent, attained the greatest size.

Specific inorganic manures.—For three consecutive years I have been experimenting with these manures, in regard to the *size*, *productiveness*, and *flavor* of melons.

1849. Exclusive of the humus, the upper stratum of the soil is a clay loam, the lower hard pan. The site selected was trenched three feet deep; the several strata were freely incorporated, and well rotted horse manure was freely distributed through the whole mass. Hills were raised six inches high, made light with fine sand, and distinguished, with one exception, by the following materials faithfully commingled.

* A cross between the nutmeg and citron.

Bed 1. *Superphosphate of lime and sulphate of potash.* 2. *Burned turf.* 3. *Muck*, neutralised by *potash.* 4. *Ashes.* 5. This bed was left without any mineral addition. They were mulched with long litter. The melons grown were nutmeg.

Note of 14th of September.—No. 1 exhibited the greatest *number of large* melons; 2 and 3 were the *earliest* to offer ripe fruit; 5 the latest; 2 produced melons grouped in beautiful clusters, more numerous for the space covered than the others; 3 and 4 gave *larger* samples than the others.

Note of 28th of September.—1. Superphosphate of lime and sulphate of potash. This plot has afforded the largest amount of melons of full size, and contains most at present, matured and maturing.

No. 2. Burned turf.—The clusters have been closer than either of the others; the total amount less than the one above.

No. 3. Muck neutralised by potash.—This plot has produced an amount of melons equal to No. 2; nearly all have been matured for some days, evidently exceeding all the others in this respect.

No. 4. Ashes.—This bed has exhibited the greatest number of very large melons; has not equaled No. 1 in productiveness.

No. 5. Soil without mineral manure.—The melons of this bed appear to be intermediate to No. 1 and 4 as to size; to No. 2 and 3 as to productiveness.

It would seem, therefore, that melons of No. 1 excelled in *size, quantity* and *lateness;* those of No. 3 in the *early maturing of the entire crop;* and those of No. 4 and 5 in the *size of select specimens;* in their productiveness, being inferior to No. 1 in number.

My own taste preferred the *flavor* of the melons grown in No. 1 and 3, where superphosphate of lime and sulphate of potash, and humate or gyate of potash, exercised their specific influence.

Specimens, however, corresponding with these beds and dates, were sent to my neighbor, Mr. DOWNING, and his practised judgment will be most satisfactory, touching the important question whether inorganic manures can modify the *flavor* of melons.

1850.—Holes were dug in two feet trenched ground, and hills formed similar to those of the present year, with this exception, that *old manure* was applied in place of *guano.* Beds were composed of—potash in muck—ashes in muck—burned turf—superphosphate of lime—superphosphate of lime and sulphate of potash—sulphate of soda in muck—salt and lime mixture, and poudrette.

The melons fed by humate of potash exceeded in *number, size* and *flavor;* those by poudrette equalled the previous in *number* and *size;* and those by superphosphate of lime, and lime and sulphate of potash, equalled the first in *flavor*, and approached the two previous in *size.*

1851.—The experiments were repeated the present year; but illness at the time most essential to an opinion, interfered with any accurate conclusions. My gardener, however, renders a decided preference to the product of the beds modified by the preparations of potash and superphosphate of lime.

Hybridizing.—The sensitiveness of the delicate Persian melons in the open air has interfered with their cultivation in this country. To *harden* and *acclimate* them, I made experiments of cross-breeding with our ordinary melons, during the last year, and with tolerable success. The flowers of Borneo were fertilized with the pollen of Green Hoosianee. Melons were produced of the precise form of the Green Hoosianee, with the color of the Borneo; their flesh possessing the fine fibre and tenderness of the Hoosianee, and in a partial degree, the flavor of the Borneo. The cross-breeding was extended to Polignac

and Borneo, and also to the French Cantaloupe, (*Melon galeuz*,) and Wycoff's citron. All the specimens gave positive evidence in their form and tissue, of their male parentage.

This year plants were raised from the seeds of the cross of Hoosianee and Borneo. The melons on my grounds possessed the form of the Borneo, and flesh of the Hoosianee, those on Mr. TUCKERMAN'S grounds, under the care of Mr. HOPE, exhibited the form of the Hoosianee—the whole produced from the seeds of the same melon. The extreme drouth of the season has interfered with trials for satisfactory conclusions, and another year will be required to determine as to the important quality of adaptation to our climate.

WATER MELONS.—These melons mature very freely in this locality, under *ordinary* culture, while the muskmelons, similarly treated, fail entirely. My plantations, however, have been subjected to the same discipline as the muskmelon, in every respect, with this exception, that the intervals from the center of the beds were increased from six to *ten* feet. The fruit has certainly possessed the finest flavor in the estimation of no indifferent tasters. The melons cultivated were "Imperial," "Florida," and "California;" the two latter I have so named to designate them.

The "Florida" was grown from seeds brought from Florida by Mr. SKALLY, my gardener of last year. It resembles the "Spanish," and probably is one of its varieties. The fruit is oblong, of medium size; skin deep green, striate with white marbling; flesh bright red, *solid*, very tender and delicious; seeds sparse and small, in different samples black, red or white. The largest specimen weighed 25 pounds.

The "California" seems to be another variety of the Spanish, sustaining an intermediate form between it and the Imperial. It was matured from seeds received from the "Auriferous tract" last year. A. G. H.

Newburgh, N. Y., Oct. 15, 1851.

The foregoing record of a careful course of experiments in melon culture—continued during three years—by our scientific neighbor Dr. HULL, will be read with much interest. It should be borne in mind by our readers, living on the warmer and lighter soils of New-Jersey and farther south, where fine melons are "grown with as little care, almost, as cabbages," that the soil about Newburgh is a strong clay loam—naturally by no means so favorable to the melon as the warm sandy loams of the former localities. It is therefore necessary to take far more pains to grow a fine crop of melons here, than in other and lighter soils.

As to Dr. HULL'S success, we frankly confess it surpassed all precedent here. We examined several times his melon patch, 40 by 180 feet, which produced the enormous number of *sixteen hundred melons*, and tasted the products, and are bound to say that we never saw so large a crop on so small a space, or tasted larger or finer melons. Looked at merely as a matter of profit, the outlay of preparation would be satisfactory—though of course much more was expended in the process of making the different experiments than would be needful to carry any one of the modes of manuring out, on a scale suited to general culture. The flavor was very distinct in the different beds—those in the beds of burnt turf being to our taste the most sugary and rich, while those with the superphosphate of lime were the most juicy and melting. ED.

ON RAISING NEW GRAPES BY HYBRIDIZING.

BY WM. CHORLTON, STATEN ISLAND.

DEAR SIR—I have been very much interested in reading over Dr VALK's article in the Horticulturist for October, describing his success in hybridizing our hardy grapes with the exotic varieties. Too much praise cannot be given to that gentleman for his enterprising experiment, but it appears to me that he has gone the wrong way to work.

Physiological theory teaches, and practical experience proves to us, that the progeny of a plant, the flowers of which have been fertilized by another, is more likely to retain the constitution and habit of the mother, while any peculiarities as to flowers and fruit of the father, are introduced into the same body; consequently the Isabella should have been fertilized by the pollen of the Hamburgh, when an Isabella vine would most probably have been more the product, with an approach towards the fruit of Hamburgh. This appears to be proved by your own description of the fruit, and also Dr. VALK's account of the appearance of the plant. So decided is the above fact, where proper care has been taken in the crossing, that the operator can predict tolerably closely, what the result will be. I do not pretend to deny that both fruit and plant will be somewhat changed by the same course which Dr. Valk has practiced, but we shall sooner and more surely come to the goal of our wishes, by acting in accordance with those laws which an all-wise Creator has so unerringly established. If we study nature she will bend most willingly to our purpose, and the progressive intellect of man may realise his most ambitious desires. It appears to me as settled as a demonstrated fact, that we can produce by perseverance in this course, a tribe of grapes quite equal in flavor to a Muscat or Frontignan, and as handsome in form and size as the Hamburgh, with a constitution equally as hardy, if not more so, than the Isabella.

Perhaps no better varieties can be chosen than Black Hamburgh for a black, and Chasselas Fontainbleau or Dutch Sweetwater for a light colored class, as these kinds are very sweet and devoid of that hard pulp which predominates in the hardy sorts. The Frontignans or Muscats I would not make use of, for the natives have already too much of the musky flavor. By introducing the sweetness of the Hamburgh and Chasselas, we shall be most likely to reduce in a corresponding degree the foxiness of the natives, which is likely to produce a Muscat flavor and Hamburgh size of berry and form of bunch. I do not presume to say that this can be accomplished in one generation, but perseverance in the right track is sure to bring it out in process of time. To ensure success, some care and attention is necessary; more will be accomplished, with care, from a dozen seedlings, than by a thousand without it. The plants to be operated upon, should be in robust health, neither having at any time shown symptoms of mildew, and the flowers of both selected from fine and well shouldered branches. The operation of fertilizing is also a somewhat delicate one, and there is some difficulty in getting the two sorts to bloom at the same time,—for the exotic, to be perfectly free from mildew, will, almost without exception, have to be under glass, and the native on account of producing hardiness should be planted outside. A temporary glass frame to forward the latter would be of service, and the former might be retarded by excluding the light till the buds burst and afterwards keeping the head down in a cold house. When the hardy sort begins to open its flowers the stamens should be immediately cut out, and the stigma fertilized by the exotic, for on this depends all success, as any plant will more readily be impregnated by its own than

another's pollen. While the mother plant is in bloom, care must be taken to keep off insects, and the female should be some distance from any other grapevine which is in bloom, for the pollen is a very subtle substance and a proximity might destroy all success.

As this subject is of such paramount and national importance, you will perhaps think these few hints of use to some of your numerous subscribers.

Yours most respectfully, WM. CHORLTON.

New Brighton, Staten Island.

THE CALIFORNIA GRAPE.

BY R. G. PARDEE, PALMYRA, N. Y.

THERE has been an unusual interest for some time past, to learn something definite respecting a grape growing in California, of which almost every return traveller speaks in the most extravagant terms.

During the State Fair at Rochester, I was privileged with an interview with an intelligent officer in the U. S. Army, CAPT. H——, who, with his accomplished lady, spent a year or two in California, mostly at San Diego—and from whom I gained a more reliable and particular account than I have hitherto seen.

They assure me the grape is of richer flavor as a table fruit, than any of our foreign vinery grapes, and we had just been eating some of those superior Black Hamburgh and others, to which the first premium was awarded at the state fair.

The grape is a reddish purple, but a trifle larger than a full size Catawba, and yet the bunches are enormous—often weighing three pounds, and some twelve to eighteen inches long.

It is always cultivated in the vineyard mode, except each vine, instead of being trained to a pillar, is allowed to fall in a heap on the ground, under which hangs three or four enormous bunches of these unequalled grapes. They say as far as their observation extended in California, and certainly in the vicinity of San Diego, there is no such thing as a native or wild growing grape, to be found. Capt. H. says the grape makes a fine wine, very similar to the Tarragonna wine of Spain, and he saw some immense wine vats for making wine on a vast scale, which were built a long time ago.

The general impression seems to be, that the grape was imported from Spain many years ago, and has improved in flavor by being cultured in the very genial soil of California, so that now it cannot be identified with any foreign grape.

Whether these impressions are correct, could very soon be ascertained, if the cuttings were sent across the Isthmus this winter, and placed in a process of cultivation.

R. G. P.

We have heard before of this fine grape—which is probably some variety from the South of Europe, not introduced into our collections. Will not some of our readers who have friends travelling through San Diego, take a little pains to get some cuttings of this variety. In winter they might be carried in one's trunk, as easily as dry sticks. ED.

Reviews.

1. Address before the Norfolk Agricultural Society *at Dedham, September* 26, 1851: By George R. Russel.

Mr. Russell's address before the Norfolk Society—one of the youngest, but certainly one of the most energetic in Massachusetts—deserves more than ordinary attention. It is a production full of vigor, earnestness and pith. It is replete with evidences of scholarly culture, adding what is even more important, a right understanding of the present condition and wants of the agricultural class; and it is enlivened with genial strokes of humour that doubtless gave it no little effect in the delivering.

Mr. Russel speaks to the point on the all important subject of *agricultural education*, and we cordially agree with his views as expressed in the following extract:

"The advance of our cultivation is often retarded by the indifference of the cultivator. There are to be found those who scoff at book-farming as useless, maintain that there can be no improvement in the management of the soil, and look at a newly-invented implement as an insult to their ancestors. They would go on as the latter have done, not reflecting, that if successive generations did not add something to the stock of knowledge, we might get back to that patriarchal period when the broadest branched tree was the best house, and red paint the most fashionable garment; when the economy of the kitchen consisted in robbing the hoard of the squirrel, and the ten fingers were the only tools that scratched the face of mother earth.

A blind reverence for the past is the great stumbling-block of the present, and flagrant injustice to the future. Do as our fathers did! It is well we should, when we can do no better; but man has been made a progressive creature, is endowed with aspirations after excellence, has implanted in him a restless energy that is continually urging him onward. He could not stop if he would. He partakes of that law of motion which governs all things, from the smallest particle of animated dust, up to the infinite worlds which, cluster on cluster, system within system, whirl in endless revolution round the throne of God.

The fanatic, who threw a stone at the Earl of Rosse's telescope, because it pryed into mysteries, intended, as he believed, to be concealed from human curiosity, was a type of that conservatism which would have no new farming. It would not encourage the unditiful longings of children, who strive to know more than their parents. It would level the school-house, entertaining Jack Cade's opinion of men "that usually talk of a noun and a verb and such abominable words." Of what use is education, but to engender self-conceit and encourage wasteful expenditure. Why buy volume on volume, and cover black.boards with cabalistic characters, when "our forefathers had no other books but the score and the tally?"

Advancement is the destiny of man. He who stops in the race is run over, and left behind, crippled and forgotten. Whatever may be the limit to human attainment, it has not yet been discovered. We press forward to an eminence from which we hope to behold all created things, but it is reached only to find heights to be climbed and difficulties to be surmounted.

It is too generally supposed, that education should be confined to the "learned professions"—that it is well to fill the heads of lawyers, doctors, and clergymen; but as for the farmer, merchant, and mechanic, it is better that their drudgery should not be disturbed by any information beyond the rudiments. If the farmer can read the almanac and weekly newspaper, the merchant keep his accounts in tolerable condition, and the mechanic spell out the orders on his slate, they are presumed to be amply provided with all the erudition necessary for their vocations. The patronage of the state and the munificence of private individuals have been reserved to encourage a course of education, which had its origin in the wants of a privileged class of a bygone age, and is, now, of questionable use, even to those who intend to enter the pulpit, the sick chamber, or the courts of law. But, for the ordinary purposes of active life, the college student, when he is turned adrift with his diploma in his pocket, is about as helpless and useless an object as can be cast on the cold charities of the world. His nursing mother, after softly rocking his cradled slumber of four years' duration, suddenly shakes him off, in an unweaned state, thrusts

him into the street, slams to and bolts the door, and there he stands, in hopeless dejection, wondering what to do with himself. "Necessity's sharp pinch" arouses him. He finds that the speculations of philosophy do not yield an available income, nor can he feed on Greek roots. He discovers that the world is a very unclassical sort of a place, and requires an equivalent of more solidity than Latin verses, or the species of knowledge that can be applied to nothing. He begins to suspect that he must learn something useful; and he lays himself down to his new preparation, forgetting, with all possible celerity, the little he has acquired during his college life.

It is not my intention to undervalue classical education. There are scholarly men to whom it is as the breath of life, and who, in sustaining its refining influences, take that share in the well-being of society for which they are adapted by taste and temperament. But it is one thing to feel enthusiasm for the charm of ancient genius, and another to limp along through

"The drill'd dull lesson, forced down word by word."

All things are not intended for all men. The usual course of university education, excellent as it may be in some cases, is the exception, not the rule applicable to the necessities of this age and this country, which, in general, require sciences that can be applied to the useful arts, and knowledge that can be turned to account.

While learning has rarely called in vain for assistance, when its object has been to swell the already overcrowded ranks of what is generally understood by professional life, there has been little or nothing done to educate young men as farmers. The most important and the most honorable occupation, which is co-extensive with civilization, which employs millions of men in daily labor, and on which the whole population of the globe depends for subsistence, has not a single institution devoted to it in all this broad land. It is left to help itself as it can, without Government protection, and with only such encouragement as can be derived from societies formed by farmers themselves. The exertions which have been made to establish an Agricultural School in this State, have not yet been successful, but it is to be hoped that they will be renewed and persisted in, until this great branch of industry shall receive the care and attention it demands. It is not supposed that an institution will turn out ready-made practical husbandmen to order, from the mere learning of books. There is no such intention or expectation. But it is believed that a course can be followed, which will combine theory with practice, and produce young men of intelligence and activity, whose hard hands and bronzed faces will bear honorable testimony that they have seen as much of the field as the study-room.

It was a saying of Napoleon, that "battles make soldiers." It is equally true, that hard work makes farmers. He who would "thrive by the plough," must leave his gloves with his Sunday coat. He must not expect to walk daintily over the earth, in holiday garb, and have her productions spring up in his footsteps. He who courts her favors, must go manfully to the work. She is not to be trifled with, and does not yield to coy wooing. The badges of her successful suitors are the dust of the ploughed ground, the sweat of the hay-field, the marks of honest industry wrought out in shirt sleeves. She loves the pressure of the cowhide boot, smiles on the tanned countenance, and the sinewy limbs, on which the insignia of manhood have been ingrained by the elements. But she does not look less winningly, if the calculating head, which guides the laboring hand, has drawn information from recorded wisdom, gathered hints from the periodical, interchanged opinions with fellow workers, and brought thought to bear on the great mystery of nature. Excellence in agriculture is neither the result of closet study nor of assiduous labor. It can be effected only by a union of both. May the sagacity of Government consult the best interests of this people, by establishing the means of producing that as yet unknown prodigy, a perfect farmer."

Though Mr. RUSSEL is a highly educated man, he is too much of an American to forget, as many college men do, that he belongs to a new age and a new country. He recognizes the spirit of the times and characterizes with trueness and point the master element of our modern enterprises:

"The guarding genius who presides over the New England cradle, is a very matter-of-fact working day spirit. Should he embody himself to mortal sight, then would appear no ethereal being, wreathed with flowers, hovering between earth and heaven, but a burly solid actuality; fixed on the firm ground, his hair filled with hay seed or cotton, his throne a country-house stool, his wand a shovel or hammer; decked, not in fairy green,

but in stout frocking, or factory skirting rolled up at the elbows. There is nothing green about *him*."

There is a large catholic spirit in the following remarks—which contain a worthy rebuke to those who distrust the tendencies of immigration:

"What is said of England, equally applies to the other highly cultivated countries of Europe, it being conceded that there is no one whose productiveness might not be increased to the necessities of its population. Yet, worn-out civilization broods, despondingly, over the apparently exhausted elements of fertility, and covering the seas with the superabundance of the old world, extends an unbroken line of emigration towards the setting sun. It comes to spread itself over this new land of promise. It comes with the antiquated usages of past generations, to renew, on a virgin soil, the hopes which have withered in ceaseless and unrequited labor. It comes to demand from the reclaimed earth, food and raiment and shelter; to seek comfort, independence, protection; to trust to an unknown land for the peace and subsistence denied in the much-loved places of its nativity. It comes to clear the forest, drain the morass, open the dark dank face of nature to the breath and light of heaven. It comes with limbs accustomed to delve and burrow, to do the rough work of this young country—to build her cities—to construct her railroads and aqueducts—to level her hills, fill her valleys, tunnel her mountains, span her rivers. It comes to unfold the resources of this vast continent, to people its recesses with active life, and to disturb the silence of its solitudes with the hum of industry. It comes to carry out the designs of the Creator, a predestinated agent to work his will, and take its allotted part in the great drama enacting on this new stage of human destiny. Let Europe, then, pour out her population upon us if she will. There is room for all. Room in the primeval forest, on the boundless prairie, on farm and in workshop. Room in the schoolhouse, where the children of ignorance may be qualified for the duties and objects of life, preparing for future usefulness by a process of regeneration that shall atone for the neglect and degredation of the past. Withhold not from others the privileges we possesss. They come as our fathers came. Grudge them not a portion of this ample inheritance, which is for all the sons and daughters of God who need a home."

II. Sketches of European Capitals, by William Ware, *Author of Letters from Palmyra, &c.* Boston: Phillips, Sampson & Co.; 1851. 1 vol. 12 mo.

One of the most delightfully instructive volumes for a long time published, is this new sketch-book of Mr. Ware's. By persons of refinement, and especially to such as have a taste for art, it will be read and re-read with increasing delight. It rarely happens that an American of so much artistic feeling and culture, adds to that feeling so much literary ability as Mr. Ware does. You feel it to be a peculiar pleasure to linger over the fine galleries of art, and the rich facades of old capitals, in his company. His appreciation of the beautiful is so genial, and ready, and warm, and his utterance of his enjoyment is in such pure and choice English, that it is a noble delight to sit at his feet as a pupil and learner.

It is neither our province nor our intention to review Mr. Ware's book. We only wish occasion to make a comment or two upon his notice of the English Parks—especially since town parks, in the proper sense of the word, are just now subjects of attention in this country.

"Another similar feature of London, similar for magnificence, for vastness, for an indescribable nobleness, is its parks. They are in no proper sense of the word, however, parks, unless you mean deer parks. They certainly are rather vast landed estates, farms, sites for towns and cities. It is a misnomer to speak of a city park which you can neither see across nor travel round, in the midst of which, in an English atmosphere, you might easily lose your way, and may be as easily robbed and murdered—so far as society *could* know anything about it, as in the midst of Hounslow Heath, or the Arabian Sahara. They are the country, rather than parks; a portion of the country fenced in, with houses just visible in the distance. *There*, where the whole Island is hardly bigger than some of our states, those parks, are several of them, four hundred acres each. *Here*, where in our American cities, territory is a mere drug, cheap and illimitable, the largest of our parks, or squares, hardly reach forty acres—I suppose, on the principle that what is common, cheap, plenty, is to be despised. But these English grounds, though too large for comfort, use

beauty or safety, have the single merit of consistency; they are in due proportion to all the rest of London, and the character of the people.

St. James' Park is the true size for every object for which a park should exist at all; large enough for beauty, air, health, exercise. Nothing can be imagined more elegant in its design, more complete in its plan and ornament. It may be considered a model for all the world of landscape gardening, and for all city parks; any deviation from which must be so far into error. It is a gem of beauty and elegance, and is, one cannot but think, the most beautiful piece of cultivated ground in the world; so different in its graceful curves from all our rectilinear plantings, and in its charming variegated shrubberies, from our unending monotonous elms. I would not decry the elm. I saw no oak or elm in England, that would compare for grandeur with our elms, especially of the valley of the Connecticut. But we must beware of the proverb, "too much of a good thing," &c. The elm is not everything. St. James Park combines the beauty of the conservatory with the grandeur of forest planting. Here, trees, in groups, or if large, insulated; there, a dense parterre of shrubs and flowers; then, in addition, sheets of water with their appropriate inhabitants. Our Boston Common, with a moderate outlay of taste and sense, might, with its naturally varied surface, have been made as beautiful as the Park of St. James is now, one must suppose,—though still not too late for some change for the better—condemned for all time to their geometrical lines of elms and maples, as if there were in nature neither such things as shrubs, flowers, or curved lines. Our American idea of a city park, or square, seems to be—it is not the same thing in all cities—rows of forest trees, with straight paths between, which will conduct the business man, by the shortest possible cut, to his shop or his couning-room, allowing never the sacrifice of a foot or an inch to taste, the love of beauty, or the enjoyment of a walk. With the single exception of the Common in Boston, no other park or square in the country, exceeds some ten or fifteen acres. And, though so small, yet if well laid out, it were in most cases enough—better at least, and less of a nuisance—for that they are with all their vast extent—than Hyde, Regent's, or Victoria."

The impression of vastness produced on the mind of Mr. WARE by the London Parks, is precisely that which is felt by all Americans at first sight, and so far we agree with him. But he seems to have overlooked the highest merit of those parks, as compared with the larger parks of the continental cities, though his description clearly shows that he felt what he did not understand the true value of, viz: their truthful expression of *nature*. That they *are* like vast landed estates—portions of real country, with trees, streams of water, broad meadow-like surfaces, untouched by art, is just their highest praise, both as proving the real fondness of the English for natural beauty, (for all continental town parks are formal,) and as evincing a knowledge of the great charm and power of *contrast* in art; for nothing can be finer than the contrast of the great London Parks, so rural, so simple, so entirely natural in character, with the highly artificial aspect of the elaborated and complex streets and buildings of the city.

But Mr. WARE makes also a greater practical mistake when he complains of the *useless size* of the great London Parks. His error can only be explained by supposing he could only have seen them when London was comparatively deserted, or that he only walked there in the morning—when they always look lonely. One of the main uses of the great parks—Hyde Park, for instance—is for the purpose of taking exercise in carriages or on horse-back. St. James' Park, which is not undeservedly Mr. WARE's beau ideal, is only a park for promenade. It is too small for any other purpose, (though containing 87 acres,) and we have several times seen its numerous broad walks and alleys absolutely thronged with men, women and children, all enjoying their promenade. To understand the value of the Parks of London, one must visit them day after day, in the London "season"—and from half past three to six o'clock in the afternoon. He will then see Hyde Park, vast as it seems in the morning, completely and wholly taken possession of. The great circle, four or five miles round, will be one unbroken line of carriages, of all sizes and descriptions—Rotten Row, as the space particularly set apart for equestrians is call-

ed, will be gay with its hundreds of ladies and gentlemen on horseback—the banks of the Serpentine will be crowded with thousands on foot, enjoying the beauty of the "flood and field." At the same moment—especially on the days when the band plays, Kensington Gardens—which joins Hyde Park, will be filled with thousands of pedestrians—for no carriages are allowed there—though there are over three hundred acres of park there. When we state that we have seen over fifty thousand persons in Hyde Park and Kensington gardens, riding, driving, and walking, in a single afternoon, and that at the same moment St. James' Park was as gay with its thousands, it will, we think, be understood that the immense parks of London are no larger breathing zones than the lungs of a great, populous and wealthy city, require. Parks for promenade merely, are delightful features in a city, but much more delightful are carriage parks, which include the privilege of taking exercise in all ways. Hundreds and thousands of invalids, who are unable to walk, are enabled to enjoy the luxury of the open air, without the annoying rattle of the pavement, in the carriage path—while to those who own carriages, the pleasure of driving over a smooth park road, instead of round stones, is almost the whole difference of enjoyment or no enjoyment. What our great cities, therefore, should really aim at now, is, not little green squares, of no value except for promenades—but spacious carriage parks, large enough for all purposes of recreation and enjoyment in the widest sense.

As a specimen of the chasteness and beauty of Mr. WARE'S style, and the excellence of his architectural criticism, we quote the following passages upon some of the edifices of Florence:

"There are no palaces for a dark and sombre magnificence, like those of Florence. If one looked no higher than the ground floor, he would think much more of a prison than a palace; but if of a prison, it would be one for the incarceration of nothing less than princes or kings. But lifting the eye upward, and no one can longer doubt that he is examining the residences of some of the long descended inheritors of the power and wealth of Tuscany. They have about them, in a remarkable degree, an air of nobility. The forms are extremely simple, even to severity; no ornament which seems to be ornament for its own sake. The architecture, you will observe too, will have all the parts which properly belong to it, but beyond that, not a line, not a curve, not a moulding—nothing beyond the strictest demands of the order; and the order chosen you will find for the most part to be the simplest and severest of the fine, that to which the country has given its name, the Tuscan. I do not believe there is a more impressive building in Europe than the Ricardi Palace in Florence, the ancient residence of the Medici, in the days of the first Cosmo and Lorenzo. It preaches like a sermon; it harangues like an oration; it inspires like a poem. I came upon it unexpectedly the first day I was in Florence, and as I stood beneath its black walls of chisselled rock, with its massive overhanging cornice, I felt for the first time the power of architecture. And yet, palace though it be, it presents but two sheer, unbroken fronts, on the corner of two streets—no projection, no recesses, no towers, pediments, columns or piazzas,—two simple fronts with their magnificent cornice, that is all; but so grand are the proportions of all, as if Michael Angelo had written his name all over it, that for true sublimity, it far surpasses all other structures there, even the huge Cathedral itself.

The famous Cathedral—the Duomo, begun in the fourteenth century by Arnolfo, and finished by Brunelschi, in the fifteenth, is very vast, having a length of four hundred and fifty, and a height of three hundred and eighty-seven feet. And had it been built of one kind of marble, it would not have been without a very grand effect. It is impressive as it is, especially in its interior, with its rich painted windows, rich as if Titian had been the artist—but much is lost to the exterior, owing to its parti-colored material, being made of marble in alternate layers of white and black—a childish taste of the age in which it was built,—which disfigures many otherwise fine buildings, both there and in Pisa, and notwithstanding its great size, gives to the church in question the look of being only an uncommonly large toy. Its dome is considered its greatest glory and boast—and with reason—there had been nothing like it before. It was in point of time, before St. Peter's, and served as its model to Michael Angelo, who was never satisfied with gazing upon it, both

with admiration and a feeling of despair of ever being able to equal or surpass it; and was accustomed to say, as he looked up to it, "Like thee I will not build, and better I cannot;" yet he ended in building both like it and better. The dome of St. Peter's is both larger and far more graceful in its design. The style of this Cathedral is especially interesting, as it marks the point of departure from the Greek and Roman forms, and the introduction of the modern style of the Gothic. It is of a mixed character, like the great Cathedral of Pisa, (neither wholly the one nor wholly the other—the new, however, predominating very decidedly)—and which, in its more completed forms, has erected the noblest religious buildings in the world."

Domestic Notices.

TIMELY HINTS ON TRANSPLANTING.—*Novices* in planting always think it quite sufficient to place the roots of the newly moved tree in the earth again; *old planters* take care to prepare deep and wide holes—throwing out all the clayey or poor sub-soil, and mixing the good soil with plenty of manure or compost. New planters replant the roots just as they are—broken and bruised by lifting them out of the ground; old planters carefully smooth the ends of all bruised roots and cut off all broken ones—knowing very well that such roots, if not cut off, lead to a diseased condition of things under ground. Young planters are content with shovelling in the earth upon the roots and tramping it down with the foot till the tree is quite firm—by which many hollows are left under the tree and among the roots—whereby mouldy roots, feeble growth and often death ensues; old planters make it a vital point to see with their own eyes and feel with their own fingers that the fine soil reaches every fibre, and that not a single hollow is left among the larger roots. Young planters bury a tree three or four inches deeper than it stood before—by which the roots are put so far below the kindly influences of the air that the tree either dies at once or lives the life of a half-starved mendicant for years, scarcely growing at all; old planters plant the tree scarcely so deep as before, knowing that the roots will *run down* easily, though it is hard for them to *run up*. Young planters plant their trees on a level, by which, when the ground settles, they find their trees too deep: old planters plant them on a slight hillock, by which, when the ground settles, they stand precisely as they ought. Young planters, with their fine tender-heartedness, cannot bear to shorten the limbs of transplanted trees, and hence their trees struggle hard to live, and probably stand still for a year or two to recover; old planters, with their hard-earned better judgment, shorten-back half or two-thirds of the growth of the current year on all the leading shoots, in all cases—and in trees that have been much mutilated at the roots, they head-in the main branches still more, till some of balance is restored, so that their trees push out vigorous shoots the first year, and at the end of three years are far larger and handsomer than the unpruned heads of the young planters. And, finally, young planters often waste money in staking fall planted trees to hold them up, even in positions not windy; while old planters raise a hillock of earth over the roots eight or ten inches high, thereby steadying the tree, and protecting the roots till spring, when the soil being well settled, they take it away and the tree will stand alone.

THE HORT. SHOWS AND FESTIVALS.—The month of September has been an unusually *gay* one among both the Agriculturists and Horticulturists all over the land. Shows have been numerous and fine, and in several instances they have closed with festivals, dinners or balls, that have united the sympathies of the outside public and the immediate votaries of the art very happily. New Haven, Rochester and Norfolk County, seem to have been especially fortunate in these festivals. We regret that our numerous professional engagements prevented our accepting the many kind invitations to these fairs and festivals, which have been kindly showered down upon us, and for which we are

not the less obliged that we were not able to accept the welcome biddings. But indeed it would have been difficult for the best intentioned and most leisurely of guests to have done much more than sit down at one of the many tables, since our societies *will* persist in sending out all their cards of invitation the same week. Why should not some of them vary the matter by having their annual Exhibition in the early summer, at the cherry and strawberry season? It would be a delightful novelty at least, and we think, if well done, would have a freshness and brilliancy about it that would contrast finely with the usual rich but somewhat monotonous display of Autumn. If the Boston Society, for instance, would hold its next show under large tents in the beautiful grounds of some gentleman in the suburbs, it would be far more delightful and appropriate than this constancy to small halls in town. Mr. CUSHING, or some of his neighbors at lovely Brookline, would, we should think, be as liberal in offering the use of grounds for a day to Massachusetts, as the DUKE OF DEVONSHIRE is to the London Hort. Society. *Nous verrons.*

MONTGOMERY PLUM.—I noticed in an article on plums, in your June number, something requiring explanation from me, but have not been able for want of time, to attend to it. I once called the Montgomery a plum, (though it goes by the name of prune,) and for this reason. It is customary in Lancaster to call any new seedling plum, or any nameless one, prune or plum, according as it is oval or round; it was so with Mr. CARPENTER, and by the enclosed letter you will perceive it was also so with others. In the latter case, where two different sorts have the same name, it is well enough, but I think upon the whole, it were better for horticulturists generally, to curtail and simplify as much as possible, and not dub a plum "prune," simply on account of shape, without reference to sweetness or drying qualities. The above article also recommends the Groundacre plum, and knowing that there was a mistake in the name, I wrote to the namer of the fruit, Mr. GUNDAKER, of Lancaster, Pa., for a description, which he has kindly furnished, and which I take pleasure to enclose to you.

The Gundaker prune is doubtless the fruit Mr. FARNESTOCK alludes to, as it agrees with Mr. CARPENTER'S description of it.

The excessive heat and drouth of the last three weeks, has caused a heavy loss to the wine makers of Ohio, leaving but about one-third of the half crop anticipated, the balance being dried up. Three weeks since, my crop of grapes on three acres, was estimated at 600 gallons; today it is all pressed, yielding but 130 gallons, very sweet, but containing also much sediment, and I have done better than many others.

I was much pleased with Mr. VAN BUREN'S experiments on the curculio, in the last number, and hope he will not be discouraged. I shall send you some of my experience when time allows. Yours respectfully, C. G. SIEWERS. *Cincinnati, Sept.*, 1851.

The following is MR. GUNDAKER'S letter referred to—

C. G. SIEWERS—Dear Sir: Yours of the 30th of August, came duly to hand. You inquire relative to the origin of the Gundaker plum. The fruit you allude to was raised by myself, somewhere about 32 years ago. I planted some seed, of what kind of fruit I do not recollect; there were about a dozen grew, and when going to inocculate them, two of which, judging by the leaves, &c., I let stand, thinking they would bring good fruit.

The one you allude to was named the Gundaker Prune, and the other Gundaker Plum. The prune is of a yellowish white color, nearly as large as the Blue Prune, and of the same shape, (oval,) very high flavored, and a good bearer. The plum is of a purple color on one side, and the other, a light color; heart shaped, resembling a plum called the Golden Drop, but larger in size, and a great bearer.

I should have answered yours before this, but my absence from home was the reason of my not doing it. Resp'ly your obd't servant, SAML. E GUNDAKER. *Lancaster, Sept.* 15, 1851.

LIME-WASH FOR CURCULIO.—DEAR SIR: I have noticed with much pleasure, in your September number of the Horticulturist, the success of Mr. LUDLOW, of Yonkers, N. Y., on applying a new remedy against the attacks of the curculio. He tells us that he made a pailful of white-wash from unslaked lime, and mixed with it *a handful or two of flour of sulphur.* This

he applied three times, allowing three days to intervene between each application.

I have great faith in his remedy, and the more from an experiment which I performed upon two plum trees several years ago, which I will now describe to you. I had read somewhere this fact, or it had been related to me, that a man sowed gypsum, or plaster of Paris, in a field adjoining an orchard of apple trees, at a time when they were in full blossom. It was quite windy that day, and the plaster was carried pretty abundantly to all the trees on that side of the orchard next to the field. In the fall it was observed that those trees which received the plaster bore very abundantly, while the other trees which did not receive it, bore little or none; and I remember that the cause of the great bearing was attributed to the plaster. Receiving a hint from this, others had applied the plaster to other fruit trees when in blossom, and with similar good results. Having become acquainted with these facts, I resolved to try the efficacy of plaster on my two plum trees, which had previously been full of blossoms from year to year, but had borne no fruit of any account. This year they *were very full* of blossoms, and I applied the plaster by throwing it in a powdered state, on to the *blossoms*, in the morning, I think, and probably when they were somewhat moist with dew. In the time of their ripening, the tops of the trees were one almost perfect blush of purple. I never saw plum trees hang fuller in my life.

I did not then know that the plum tree was subject to the attacks of such an insect as the curculio, nor did I understand what connection there was between the plaster and the great bearing of the trees. The next year, I think, I left the place, and not till within the past year or two, having had any plum trees large enough to bear, I had forgotten all about my experiment, nor had I had seen in any quarter, notice of the continued application of plaster for the purpose of making trees bear more.

Mr. Ludlow attributes the perfect success of his experiment to the *sulphur*, and if he is correct, I think I can see now the reason of my success in the case I have mentioned. Gypsum, or plaster of Paris, is *sulphate* of lime, and by throwing this on to the blossoms, sufficient *sulphur* was communicated to them, and absorbed by them, to protect the growing fruit from the ravages of the curculio. I think I did not make the application but once. Perhaps, however, it had better be made two or three times—once, at least, after the fruit is formed. This method of applying the sulphur, i. e., by throwing ground plaster on to the blossoms, has this advantage over Mr. Ludlow's method, that it is more simple and easy. Yours respectfully, E. L. Hart. *Farmington, Ct., Sept.* 18, 1851.

Cheap Covering for Green-houses, etc.—I have a few words to say about a cheap and effectual covering for green-houses, pits, etc., which will answer for the American climate, as it has answered for our severe winters in the northern parts of Germany for the last 30 years, to the greatest satisfaction, under all circumstances. According to the size of your lights, have a frame-work made, so if put on, to cover the whole light sufficient. Take paste-board of the most common kind—tar it well over, so that the tar will soak well in the paste-board—do it a second time—then, according to the size of the paste-board, nail it on to the above mentioned frame, and put so many lath in your frame-work as to make the paste-board tight, or rather keep it, when snow or rain is falling, from bending on the glass. After that is done, give the whole another tarring over with a better sort of tar. I forgot to mention that it is best to put the tar on when it is either boiled, or made thin by means of hot stones put into it. After that is done, take a fine sieve and sift some sand over the whole, which will give it a nice appearance, and prevent any sticking which might be left by the last tarring. This, done every second or third year, will keep these shutters for many years. Any accidental hole can be repaired by sewing a piece of prepared paste-board in it. It is possible that many may think boards for shutters, cheaper and better than this; but any one acquainted with them, will know that the glass is very liable to be broken by them, besides getting so often out of repair, and being so very heavy when snow or rain falls on them. The way to secure these sashes, (or shutters,) must be left to any one's own choice.

P. S. It is the air, or space between the shutters and glass, which keeps the frost out.

Viola arborea.—I find it said in your columns, some years back, that this violet is grow-

ing like any other species, only being a good and double sweet blooming kind, not resembling any tree-like appearance. I beg to say, that if you trim the plant of its suckers continually, within two years, if well grown, you can have handsome plants, with a crown of one and half to two feet high. The plant is of double value then. F. T. M. Otto. *Flushing, Oct.* 6, 1851.

Preservation of Ripe Fruit.—To A. J. Downing, Esq.—About the season when the Madeleine Pear is ripe, (in July,) I expected a friend, who I knew would be delighted with the taste of this fruit. He did not however arrive until the fruit (which you know lasts only a few days) was nearly gone. I gathered, notwithstanding, a few good specimens, and putting them into a dry, covered, tin vessel, surrounded this with ice, where it remained for two weeks. This, so far as I am aware, was an original experiment, and I knew not, therefore, how it would succeed; but on the arrival of my friend, the cover being removed, I was not a little gratified. as well as surprised, to find that the fruit had undergone little or no change. several of the pears being still hard, while those which were fully ripe, when put into the vessel, had not decayed.

As the success of this experiment was wholly beyond my expectation, I have since tried it on other fruits, as early peaches, and summer pears, with equal success. I see no difficulty, therefore, in presenting our friends, on the other side of the Atlantic, specimens of our finest pears and peaches, if they are enclosed in dry tin or glass vessels, and placed in the ice-house of the ship. My experiments, however, have b en made only with small quantities of fruit, the vessels holding each but one or two quarts, as a common tin-pail with a tight cover. If you think this new, and worth knowing, please insert it. Yours truly, J. L. Comstock. *Hartford, Ct., Sept.* 1851.

A very simple and very successful experiment. Since receiving this account, we notice in the Liverpool papers, that an American has carried out peaches in the same manner, and had the pleasure of presenting them to his friends in England in the finest preservation. It is not unlikely that this amateur experiment may lead to a large business in exporting the more delicate fruits. Mr. Tudor, of Boston, familiarly known as the "Ice King,"—must, however, have the credit of the discovery, for his ice ships have for several years past been in the habit of supplying the wealthy citizens of *Calcutta* with fine American apples—carried out with the ice. Ed.

New Portulaccas.—In my communication last month, I described only one new variety, viz. the crimson and yellow, and that had not developed its full character. Shortly after, another bloomed, even more beautiful than the first. It is a white, with crimson stripes. The white Portulacca, already known, sports occasionally by an aggravating dash of crimson upon one or two petals, and sometimes a whole crimson petal, etc; but the new variety I have obtained has a distinct and decided character, combining, in every flower, the colors of the two parents, crimson and white, presenting a flower delicate in its pencillings, and beautiful in the extreme. The pure yellow and pure white, are both feeble plants compared with the crimson and scarlet varieties, the crimson being the strongest grower of all. The *crimson and yellow mixed*, partakes largely of the strength of the crimson, and the flowers are quite as large. The *white and crimson mixed* is not quite so strong as the last named.

The crimson and yellow mixed, sports exactly as I predicted, and makes an extraordinary show. The mixed flowers predominate, but nearly every morning it puts forth among its varigated flowers one or two of pure crimson and of pure yellow. The white and crimson mixed, thus far has not shown the sporting character, every flower being beautifully striped. It seems from the character of these varieties of Portulacca, that it comports itself exactly like the *Mirabilis Jalapa*, the common marvel of Peru, and I infer that we shall soon have as many varieties of Portulacca as we have of that plant; and what is somewhat interesting, to anticipate all the same colors and mixtures. It is worthy of note here that Mr. McLeod, Florist of this city, had in his garden this season, a double flower of the crimson Portulacca. It was accidental. I omitted to mention that the two new varieties of Portulacca were all that were obtained from a large number of plants.

Chas. G. Page. *Patent Office, Washington, D. C., Oct.* 1, 1851.

Mice Disbarking Trees.—After so much experience, what is, in your opinion, the best remedy or preventive of mice from gnawing young orchard trees.

I have a large quantity that are, or will be, somewhat exposed, and I want to take early measures to prevent injury. If coal tar is recommended, how am I to judge that it is not too strong so as to injure the trees? In haste, respectfully, T. G. Yeomans. *Walworth, N. Y., Oct.* 2, 1851.

We believe the best preventive to be the following. Just before winter, throw up a small hill about a foot high round each tree—removing it in the spring. The mice look for the tender bark at the surface of the ground, and not being able to find it, let the tree alone.

Coal tar is found dangerous—sometimes serving the purpose well—but, when too strong, killing the tree. Ed.

Seedling Grape.—Mr. Downing—Dear Sir: Herewith I send you a few bunches of grapes from a seedling vine, which has produced fruit this season for the first time, and should like to have your opinion as to the quality. The vine is now four or five years old; I do not exactly remember which. It is a strong grower, and I should say will prove a great bearer, if the fact of its setting about 100 bunches of fruit for the first time, goes for any thing. I picked off all but 40 bunches when the fruit had attained a good size. In fact, the fruit was larger a month after the blossom, by one-half, than that of an Isabella vine that is on the opposite of my garden. The vine has had no cultivation whatever, and I have no doubt that if we had had more rain, the berries would have been very much larger than they are. It strikes me as a very good flavored grape, but as I know nothing about the various seedlings that have been produced, I must leave the matter to some good authority like yourself. If not too late, I would like to have your opinion in the October number of the Horticulturist. Yours respectfully, A——. *New-York City.*

The specimen of the grape above referred to appears to be precisely like the Catawba, only riper and sweeter than the Catawbas were at the time they were received; in color, size and flavor, however, it resembles the Catawba precisely. Another season, it will be worth while to notice if this seedling Catawba ripens *earlier* than the original variety—as if so it will be more valuable. Should it turn out earlier, we hope "A." will let us hear from him again. Ed.

Scarlet Horse Chestnut.—The Horticulturist notices a double flowering Horse Chestnut, grown by Mr. Rivers in England, and which will probably soon be introduced into this country. Can the editor of the Horticulturist give us an account of the scarlet flowering horse chestnut grown in Newark, N. J., and the best manner of propagating, and whether trees can be obtained? Can this variety be engrafted successfully upon the common chestnut?

The true scarlet Horse Chestnut is rare in this country—we know of no large specimens except in Philadelphia. Mr. Buist of that city and Messrs. Parsons of Flushing, L. I., we think have it for sale. It is propagated by whip or splice grafting on the common horse chestnut. Ed.

The Largest Pear Yet.—We received this morning from the garden of Dr. I. M. Ward, an enormous pear of the Duchess d' Angouleme species, which weighs 18 oz. and measures 12 inches in its smallest circumference, and 13 inches in the largest. This rather beats the one noticed the other day at the Astor House, which weighed 16 ounces, and was supposed to be the largest on record.—[*Newark Daily Advertiser, 13th.*

This is by no means "the largest pear yet." A specimen of this same fine variety—the Duchess of Angouleme, was raised by S. Lekds, Esq., of Boston, last year, which weighed 25 oz., and measured 15 inches in circumference—the largest way. We have an exact model of the fruit on our table, made by Mr. Glover of Fishkill Landing, N. Y., and colored to the life. Very large and fine flavored specimens of the D'Angouleme are easily produced in rich deep soil—especially when the tree is grafted on quince stock. Ed.

A Model Hotel for Country Towns.—We copy the following description by Willis, of the Hotel at Taunton—which has become a celebrity—both as a record of progress in architecture and as a warning to landlords about building this kind of property, not to fall behind the spirit of the age. The style and conve-

nience of town hotels generally have been exceedingly improved within the last ten years—but those in the country are for the most part lagging behind. In the country where every body travels, too much attention cannot be paid to designing and keeping hotels, in the best manner. Ed.

"Taunton has stolen a march on the progress of the age. It probably shows the effect of a few superior minds among its business population. The singular advance beyond other towns of same size is visible in many things; but, among other surprises for the traveller, there is a hotel of Venetian architecture, built in as good taste as any gentleman's residence in the country, and furnished and kept in full accordance with its peculiar elegance of exterior. The contrast, between the impression with which one would probably visit the town for the first time, and what one finds there, in the advance of art and luxury, could scarcely be exceeded. One hears of it as the place for nails and herrings, and, if there is a peculiarly intense specimen of the Yankee to be written about, he would be described as coming "from Taunton, good Lord!" by every anecdote-monger in the country. Yet neither at Windsor nor Versailles would the traveller be lodged and waited on half so luxuriously, nor in any small town in England would the private residences, and their accordance with the natural features of the place, show a taste more refined and liberal. The public square — Taunton Green, as it is called—is heavily shaded with old and venerable trees, and it has the effect of a noble court-yard to the richly balconied and turreted hotel, while on its opposite sides are one or two mansions of model architecture and grounds—the sitter in any one of the picturesque galleries, upon which open the long windows of the public house, having nothing within view that would not accord with his dream of the most tasteful stopping-places of Europe."

Pennsylvania Hort. Society.—The stated meeting of this society was held on Tuesday evening, Oct. 21—Dr. W. D. Brinckle in the chair. The displays of fruits and vegetables were very rich. One collection of plants from Robert Buist's houses, were interesting; but the object most admired, was a cut flower of the *Victoria regia*. This specimen was in the finest condition of any heretofore shown before the society, and was truly beautiful. A number of handsome baskets of cut flowers and bouquets were exhibited. The show of fruits was remarkably fine, and consisted of grapes—very large White Syrian, from H. B. Tidden's houses, Tacony,—Black Hamburg, from H. W. S. Cleveland,—Blade Morocco from the President's, and Decandolle, from Miss Gratz's. Of pears, there was a great variety, and some luscious specimens. Isaac B. Baxter presented large and fine Duchess d'Angouleme; Mrs. Jno. B. Smith, Passe Colmar, Sieulle, D. d'Angouleme, Buerre d'Alembert and Holland Green; Caleb Cope, Beurre Diel, Sieulle and Bleeker's Meadow; Edm'd Jones, Kingsessing, the Jones; A. M. Eastwick and A. Fulton, jr., two unknown varieties. Other varieties were shown, from C. B. Lines, New-Haven, the Calhoun, Jones' Winter, Jones' December and January; from J. C. Hastings, Clinton, Oneida Co., N. Y., Fredericka Bremer; from Matthew Mackie, Clyde, N. Y., Sheldon; from J. P. Cushing, Boston, Doyenne Gris; from M. P. Wilder, Boston, six native and nineteen foreign varieties. Of apples, M. Synder exhibited—Bellflower, Hages, Pennock, Carthouse and Smokehouse; Jno. Perkins, Ridge Pippin and Pennock; B. F. Hodges, a seedling from the Bellflower; and from J. W. Bailey, Plattsburgh, N. Y., Bailey Spice, and Snelly Autumn; from J. C. Hastings, an unknown variety; from M. Mackie, the Clyde Beauty, and from —— N. Y., Baily Spice, Fall Harvey, Jack, Jewett's Red, Late Strawberry, Melon, Minister, Northern Spy, President, Sweet Baldwin and Sponge. Of vegetables there were five tables of well grown esculents.

A special report, emanating from the committee on plants and flowers, fully describing the *Victoria regia*, as it appeared when visited by the committee on the 28th of August, was submitted, and their recommendation that a gold medal should be presented to Caleb Cope for his liberality and energy in bringing into successful and mature growth that truly wonderful water lily, was unanimously sanctioned by the society. In the report of the committee on flowers and designs, at the recent autumnal exhibition, read this evening, a recommendation awarding twenty-five dollars to Jno. Ellis, gardener to Caleb Cope, for his skill in the cultivation of the *Victoria regia*, was also concurred in by the Society. Thos. P. James, Rec. Secretary.

The Berkshire Hort. Society held its fourth anniversary at Stockbridge, on Wednesday the 17th of September. The number of

contributors exceeded those of all previous exhibitions. Hon. Edward A. Newton, of Pittsfield, presented specimens of eleven varieties of pears, grown to perfection on his unfavorable soil in Pittsfield. Gen. William Williams, Judge Byington, and G. P. R. James, of Stockbridge, Hon. Asahel Foote, of Williamstown, and others from different Societies, presented specimens which give assurance that the choice varieties of this delicious fruit can be successfully cultivated in our hill country.

The show of apples, among which were the Baldwin, Northern Spy, and many other choice varieties, was more varied, and all that would be anticipated in a region where fruit *culture* is yet in comparative infancy. We say in its infancy; we have many old orchards, in some of which valuable fruit is to be found, yet the idea has been too prevalent, that good fruit could not be successfully raised on our old and too much exhausted soil. But the exhibitions of the two last years, are doing away these impressions, and in consequence new orchards are springing up every where.

Plums were exhibited from some half a dozen towns. The varieties were numerous, and the specimens all fine. We had seedling peaches, too, such as would make the mouth of a Jerseyman water, in rich abundance.

Premiums on pears were awarded to Hon. Edward A. Newton, Pittsfield; William Williams, Stockbridge; William G. Backus, Pittsfield; Edward C. Carter, Stockbridge. On winter apples, to Judge Byington, Edward C. Carter, D. R. Williams and Isaac Bassett. On fall apples, to D. F. Goodrich, Mrs. Jane Sedgwick, William G. Backus. On peaches, to William Williams, Mrs. Hamlin of Sheffield, and Thomas Wells of Stockbridge. On plums, to Edward A. Newton of Pittsfield, Samuel Goodrich of Stockbridge, and Asahel Foote of Williamstown. On garden vegetables, to D. F. Goodrich of Stockbridge, Graham C. Root of Sheffield, and R. A. Galpin of Stockbridge.

The premiums on flowers, were, to Mrs. James Bradford of Sheffield, for a fine display of (27 varieties) Dahlias. On cut flowers, to Mrs. Whitney of Stockbridge, Miss Susan Pomeroy of Stockbridge and Mrs. Sarah L. Clarke of Richmond. On verbenas and German asters, to Miss Elizabeth Spaulding of Stockbridge. A second premium on asters to Mrs. Mary Goodwin of Stockbridge, and one on Dahlias to Mrs. Root of Sheffield.

An interesting and poetical address was given by the Hon. G. P. R. James, and the zeal and good feeling brought out by the occasion gave good assurance that old Berkshire, among the first to excite emulation by her cattle shows and fairs, is determined, though her mountains are cold and her soil hard, not to be the last nor the least in her horticultural achievements. W. Bacon. *Richmond, Oct.* 1851.

Oswego Hort. Society.—The September Exhibition of this society was held on the 11th, at the City Hall. The display of fruits much exceeded any former one, in quality and variety. Among the peaches worthy of note, was a basket presented by Mr. J. McNair—the fruit of very large size—melting, and very juicy, with sprightly flavor, and a remarkably thin white skin, which I am unable to identify with any of the sorts described in books. The character of the leaf (serrated) induces me to suppose it is the Sweetwater, described by Thomas. It is among our earliest peaches, but too good to belong to the Early Ann or Nutmeg family. The tree is now upwards of 30 years old—produced its largest crop this year, and is yet in full vigor. The variety is extremely difficult to propagate from buds. Can you inform us what it is? [No doubt the Sweetwater.]

Mr. Worden presented seven good varieties, among them, White Imperial, Large Early York, and Red Rareripe—the last grown on trees 35 years old. Mr. C. S. Phelps, seven varieties—George 4th, Grosse Mignonne, and orhers; the Rec. Sec'y, 10 varieties, of which the Early York and Bergen's Yellow were the finest. Among them were a doz. of the Malta—the "spurious sort"—as the leaves have glands. The trees were grown on Long Island, and planted here in the spring of '46. Now, as this is not the true Malta, but yet a large fine fruit, and withal pretty widely disseminated, can you tell me what it is?

Of Pears, the best varieties were Bartlett and Dearborn's Seedling. These, with some fine specimens of Stevens' Genesee, from the garden of Mr. Phelps, were about the only kinds of merit sufficiently mature for eating. Mr. P.'s

tree of this last variety, from which the pears were taken, is nearly gone with blight, and I regret to see that this valuable sort is peculiarly subject to that malady in this region.

PLUMS—Worthy of note, were Imperial Gage, by Miss CARRINGTON and A. P. GRANT; Bolmar Washington, by Messrs. BEARDSLEY, PHELPS, BROWN, and others; baskets of assorted varieties by Mrs. J. TURRILL, Mrs. I. S. ISAACS, and others.

NECTARINES.—Mr. J. W. P. ALLEN exhibited 4 varieties; Mr. A. P. GRANT, and Mr. W. BROWN, a dish each of the Argyle and White; Mr. GEO. SEELEY, the Elruge—all very large and perfect.

Mr. W. R. SMITH, of the Macedon Nursery, exhibited 15 varieties of the pear, 28 of the apple, and 30 of the peach: the last mostly in perfection, and of the finest quality. Prominent among them were Early Crawford and Bergen's Yellow.

I must not forget to add, that among the best peaches was our *Beckwith*, a native of Oswego, a very large and delicious variety, reproducing itself from seed in nearly every orchard and garden, and never failing to produce abundant crops. Respectfully yours, JNO. CASEY, Rec. Sec'y. *Oswego, Oct.* 20, 1851.

CHAMPLAIN VALLEY HORT. SOCIETY.—The doors of the Court House were thrown open to the members of the Horticultural Society of the Valley of Lake Champlain, and to the public, at 2 o'clock, Tuesday afternoon, Oct. 5, and we hazard nothing in saying that one of the finest exhibitions of the fruits and flowers, (more particularly the former) that were ever made north of New Jersey, greeted the admiring eyes of the numerous visitors. The surprise and gratification, on witnessing so superb a display of the beneficence of our soil, under careful and intelligent cultivation, were strong and universal,—more especially as but imperfect notice to the Horticulturists of our Valley of the intended exhibition had been given, and very many were wholly unapprised of the intention of the managers to bestow premiums. This is the *first*, too, of the attempts to bring out numerous samples of the horticultural productions of the fertile and quite extensive territory embraced in the bailiwick of the society, and we believe we have the warrant of the active and indefatigable PRESIDENT himself for saying that the response quite exceeds any expectations that were formed. Indeed we were assured by Mr. HOWARD, who has attended the annual fairs of the American Institute, in New-York city, for more than twenty years past, that he never saw so excellent a display of fruit at any one of them, both as respects quality, and variety, as was on the tables of our own youthful society, yesterday and to-day.

And this is but the beginning of the end. The Valley of Lake Champlain can do vastly better. It can produce apples, pears, grapes, quinces, &c., &c., and the wide range of garden esculents, that need shun no comparison with those of any other portion of the globe,—and produce them in boundless profusion. And it *will*. It is manifest that the untiring and creditable zeal of numerous intelligent and spirited gentlemen (and ladies, too) on each shore of our lake, is working out successfully a most profitable problem, to wit: the *advantage* of the scientific cultivation of fruit in the Valley of Lake Champlain, and the congeniality of the soil and climate for such cultivation They have pretty much succeeded in the solution, and with what effect, the future annual exhibitions of their society will unmistakably demonstrate. We bid them God speed! "They are in their duty; be out of it who may."

We have neither time nor space to go into any particulars in reference to this very handsome display. There was scarcely a specimen of fruits or flowers, or of the products of the garden, in the Court House, that would not have attracted notice in any fair in the country. Where excellence was so universal, it is more than difficult to specify. We cannot omit, however, to mention the very beautiful *boquets* sent in by Mrs. ABEL HOUGHTON of St. Albans, as elegant and tasteful in their arrangement as they were choice and rare in their species, nor the superb floral contributions of MRS. JOHN H. PECK of our own village which attracted very great admiration.

Our friends over the Lake, Messrs. BAILEY, of Plattsburgh, BATTEY and KEESE, of Keeseville, EVEREST, of Peru, HUBBELL, of Champlain, BARBER, of Beekmantown, contributed largely to the interest and value of the exhibition, as also did our next door neighbors Messrs. CURTIS, HOYT and PALMER of St. Albans, HUNT and LANGDON of New Haven, ALBERT CHAPMAN, of Middlebury, PENNIMAN and READ, of Colchester, LANDON, of S. Hero, WELLS, of Underhill, HEWES, of Georgia;—while our own townsmen, President WHEELER, Prof. TORREY, Messrs. GOODRICH, POMEROY, SMALLEY, H. P. HICKOK, Dr. HATCH, PIERCE, R. G. COLE, HASWELL, TUCKER, N. PARKER, and others, most creditably represented Burlington, in the friendly and honorable competition

The annual meeting of the Society, for the choice of officers, and for the transaction of such other business as may be necessary, will be held at Burlington, on the third Tuesday of February 1852, commencing at ten o'clock, A. M.

In connection with the annual meeting, there will be held, each year, an exhibition of winter fruits, at which any other article or production not unconnected with the objects of the Society may be exhibited.

The Secretary Dr. W. C. Hickok, requests us to invite all living in Champlain Valley to contribute to the winter exhibition.—*Burlington Free Press.*

Staten Island (N. Y.) Hort. Society.—The Third and last exhibition for this season took place on Saturday the 27th ult., and was attended by most of our fashionable residents. The judges were Mr. Reid, Mr. Boll (not Mr. Ball, the indefatigable Secretary of the Society), and Mr. Tryon the well known Florist of New-York. Mr. Thorburn not only sent a superb collection of his rarest Dahlias, but attended personally to aid, with his good advice, in the management. Mr. Dunlap presented a beautiful basket of flowers, and Mr. Boll and Mr. Reid very elegant bouquets. The display of flowers was perfectly dazzling, and pronounced superior to the Show which has lately taken place at Jersey City. Mr. Greene's "Gardener's Basket," was the most graceful thing we have ever seen, the same design, we believe, with which he took the silver cup last year at the Fair of the American Institute. Mr. Carleton made a fine display, and received many prizes. Mr. Aspinwall's floral design (an immense pyramid) contained many rare and beautiful specimens, and attracted much attention. Mr. W. H. Townsend exhibited many fine plants, and a beautiful collection of tuberoses that loaded the air with their delicious perfume. Mr. Nesmith exhibited some rare fruits and flowers, but not for competition. Mr. Ball again carried off the first prize for the amateur's basket, which was one of the most beautiful things on the table, quite new in design, and the flowers in excellent condition. Mrs. A. Field's basket evinced great taste in arrangement, and contained some beautiful specimens; and Mr. Dunning exhibited some of the rarest roses known in this country. The fruits were magnificent. Mr. Olmstead, of South Side, had a superb collection of pears from his rare trees, many of which he imported only last year, and are now in full bearing; we think he should have exhibited them together; being separated, many were not aware of the extent of his collection, which embraced upwards of twenty varieties of the choicest kinds; on this occasion we would gladly have offered our services to the *committee of taste*. The hot house grapes of Mr. Greene exceeded all we have seen, and reflect the greatest credit on his gardener, Mr. Chorlton; whatever Mr. Greene exhibits is always of the highest order. The vegetables were in abundance, and remarkably fine; a mammoth pumpkin from Col. Barret was certainly the *greatest* curiosity present, measuring some seven feet in circumference. The managers have every reason to be proud of this crowning effort to their exertions, while the subscribers and the public should feel much indebted to Mr. Nesmith, Mr. Griffith, Mr. Dunlop, and Mr. Ball, for establishing a Society which must prove of the greatest benefit to the Island, and carrying it through its first season in such a brilliant manner; may their successors emulate their spirit, though for the success of the Society, we trust that no change will take place in the management, until their excellent plans are accomplished.—*Staten Islander.*

University of Albany.

Department of Scientific Agriculture.

The Trustees of the University of Albany, convinced of the vast importance which they should attach to the subject of improvement in Agriculture, have made this an object of special attention in their first steps toward the organization of a complete Scientific School.

Nearly all of our more intelligent farmers are now sensible that their profession is one which should be studied; that it is a profession in which the specially educated man occupies the same position of advantage that he does in every other pursuit of life. The old cries of opposition to all theories, and of condemnation against all books, are now fast yielding to an eager desire for instruction, and to at least a partial belief in the efficacy of science. Indeed some farmers go much farther than this, in expecting results that are at present certainly not within the range of possibility, and that there is little reason to suppose will ever be realized.

Instruction then is needed to supply what is called for by one class, to confirm the still doubtful minds of another, and to sweep away the too extravagant expectations of a third. It is also needed to enlighten the minds of a class, still it is to be feared exceedingly numerous, who look upon all progress with incredulity and suspicion, and who frown indignantly upon the idea that any one can impart new light to them in the way of their own business. Under the influence and the practice of such men as these, a great portion of our land is now deteriorating under cultivation, and will continue to deteriorate, until it reaches at last the condition of certain tracts in some of our older States, where the crop does little more than return the seed sown. Every year of the system now pursued by vast numbers of our farmers, increases by an immense amount, the labor and the expense that will be necessary in restoring the land again to a proper state of fertility.

That this evil is felt, that it is endured with impatience, is attested by the great numbers of active and influential societies for the improvement of Agriculture, in so many parts of the country; by the increasing patronage extended to agricultural books and periodicals; by agricultural surveys past or in progress; and by the numerous efforts toward the establishment of schools where scientific agriculture shall be the end and aim of study.

The reasons which operate so strongly in recommending Albany as the proper place for the location of a great Scientific School, tell with

redoubled force when the organization of the Agricultural department is considered. The capital of the greatest, most wealthy, and most powerful State of the Union; a State, too, more fully alive than any other to the cause of Agricultural improvement; the nucleus of the most powerful and influential Agricultural Society of the Union, a society whose annual shows bring together a greater concourse than those of any similar society in the world; the most desirable and accessible position with regard to the New England States, and on the great lines of communication north, south, and west, it presents a combination of advantages that may be properly called unequalled.

In view of such arguments as these, in view of the often expressed desire of the people of this State for at least the commencement of an institution which should have some special reference to the wants of its farming population, the Trustees have decided to go as far during the present season, as their means and the short time available for organization will allow.

They, therefore, announce a course of lectures by Prof. JOHN P. NORTON, now for some years in charge of the Department of Scientific Agriculture in Yale College. Prof. Norton will commence his course in the first week of January, and continue it during the ensuing three months. This course is designed especially for the practical man, and the subjects are intended to be presented in such a manner as to be perfectly intelligible to those who have never before attended to such studies. A complete and detailed outline of the general connections between science and practice will be given, and will be fully illustrated by experiments.

The substances of which the soil, the plant, and the animal consist, will be shown and their properties described. The soil will call attention first, with regard to its composition in different localities, its resulting fertility or barrenness, the means of improving by drainage, the composition and effect of manures applied, and the most economical methods of fertilization.

To this will succeed the plant, with an account of its structure in various parts, its composition so far as our crops, common trees, and fruits, are concerned, with the various theories of rotation; in this part of the course the nutritive value of the different crops is dwelt upon at considerable length, and illustrated by very full tables.

To such statements a notice of the animal economy will naturally succeed, prefaced, however, by two or three lectures on butter and cheese, giving the most authentic theoretical and practical information on all points connected with their manufacture, preservation, &c. After this come the various theories of feeding and fattening animals, with references to numerous practical examples.

By such a course the various beautiful theoretical and most important practical connections, between the soil, the plant, and the animal, will be distinctly brought forward, and impressed upon the mind of the hearer. Recitations and conversational meetings will be held in connection with the lectures, for such as choose to attend them.

Prof. JAMES HALL, of the N. Y. State Geological Survey, will lecture at the same time on Geology, and so much of Mineralogy as is necessary to the comprehension of his subject. This course will have especial reference to the bearings of Geology and Mineralogy upon agriculture, and other economical interests. The practical advantages of the connection of geological with agricultural science, will be briefly pointed out in the course by Prof. Norton; in this course these subjects will be more fully elucidated, and the student, aided by the State collection, and the very fine private one of Prof. Hall, will have an opportunity of obtaining such knowledge as will be of much value in after life, whatever may be his profession, and will besides be productive of infinite pleasure, as he may have occasion to visit various sections of of our country. Geological and mineralogical information, when possessed, is always called into frequent action, and gives its possessor weight and influence in any community.

A course on Entomology, with special reference to the injurious or beneficial action of insects on vegetation, may also be expected. This course will be by Dr. HENRY GOADBY, formerly of the Royal College of Surgeons, London. This gentleman will be able to illustrate his course by a collection of specimens altogether unrivalled, and exhibited to the class by means of the oxyhydrogen and the compound microscope. The advantages to be derived from such a course are entirely obvious, and have, moreover, been hitherto quite unattainable in this country.

Arrangements are in progress which will enable students to attend a course on Engineering and Surveying, a knowledge of which subjects would prove highly valuable and also remunerative to every practical farmer.

Prof. COOK, Principal of the Albany Academy, will deliver a course of lectures on Elementary Chemistry, to such students of this department as may desire it; the course to be both experimental and practical.

It would seem that any practical man must see the advantage of attendance upon such a course as has been dwelt upon in the foregoing portion of this circular. Science is brought forward and inculcated, not to supersede practice, but in its aid The information given is upon points which are really of vital importance, a knowledge of which ought to be looked upon as absolutely essential to every farmer. These lectures, too, come at a period of the year when comparatively little is doing on the farm, and may thus be attended without neglecting any material interest.

The importance to a young man of thus residing for a time within the atmosphere of a literary institution, can scarcely be overestimated. He comes in contact with others who are

also bent on improvement, and has also unlimited access to books; he learns to think for himself —to see that a practice is not necessarily right because it is old; he becomes favorably disposed to the adoption of every useful improvement, and the whole circle of his ideas and intelligence is permanently enlarged; he makes his profession an interesting study, not a mere routine of hard work, and while better paid for exertion, as superior well directed knowledge always is, he takes a higher rank in society as a man understanding his own business better than those who have not enjoyed like opportunities.

It is intended to offer free tickets to the courses on Scientific and Practical Agriculture, on Geology and Mineralogy, on Entomology, and probably on Engineering, Anatomy and Physiology, to two young men in each senatorial district of the State, the tickets to be at the disposal of the several Senators. The same privilege will be extended to each of the colleges in the State, the students to be selected by the faculty of each college from the graduating class of the previous year. It is hoped that this liberality may be continued in subsequent years, that in this way sixty-four young men may be annually aided and sent out to all parts of the State, to disseminate the valuable information which they have obtained. The tickets for the Agricultural lectures will be $10; for the Geological $10; for the Entomological course $5. All are payable in advance, but the student only attends such as he may select.

The price of board in respectable families varies from $2 to $2.50 per week, exclusive of washing. Two or more young men, by clubbing together, can hire a room respectably furnished, for the purpose of lodging and study, for fifty cents each per week, and can furnish themselves with food, fuel, light, and everything except washing, at a total expense of from $1.37½ to $1.50 per week in winter.

For farther information apply either to Prof. James Hall, Albany, or to B. P. Johnson, Esq., Secretary of the N. Y. State Ag. Society, Albany.

Another circular, in pamphlet form, stating the general objects and plan of this University at length, will soon be issued, and can be had on application as above.

The Country in Autumn.—A leaf from nature is never out of place, and having an ulterior object in view, we resume our woodland sketches, though a little after date. Trees have many a moral as well as economical lesson.

This is the month when the thistle is in blossom, and its fragrance breathes by the road-side. The sunflower also turns its golden circlet of leaves, and its black ripening seeds to the great luminary, and a few autumnal flowers, besides the flaunting faded dahlias, are beginning to struggle for possession against the summer weeds. The mower's work is almost ended for the season, and the reaper's is begun, so that the fields put on their show of stubble, though the meadows and pasture grounds, refreshed with rains and coolness, display a tender green, like the spring growth of grass, uncropped and unshaven. But the forests are still in all their glory. A deeper, darker green, verging in grand masses of foliage towards the brown and purple, with an indurated glossy lustre, is all that indicates the time of changing hues, and the fall of the leaf, and the departure of the glories of summer as near.

I am now in a region of great woodland richness, variety and beauty. The vast sweeping undulations, and fair sloping terraces, and distant long waving ridges of country, rising at the horizon into mountain ranges, are covered with deep forests interspersed with cleared and richly cultivated farms, so fair, so smooth, so green with lawns and fields of grain and meadows, that nothing can be more beautiful. The deep masses of the woods are composed mostly of the pine and maple, beautifully intermingled, the maple being far predominant. It grows to an immense hight and size, so that the forests here are truly magnificent. In the coolness and freshness of the dewy morning, how sweet to pass at early dawn into the depth of these grand old woods, or after seeing sunrise in the open glades, or on the upland lawn, to enter the forests when the trees are casting their earliest shadows, and the sun is throwing his slant beams upon the clusters of the topmost foliage. These majestic, tall, old trees, the growth of centuries, how solemnly they rise towards heaven, upholding and outspreading in such pendant arches, a waving roof of thick, fretted, interlacing foliage, over avenues of dim cathedral aisles. And when the wind breathes softly, or sweeps with surging gales over the leafy branches, how the whole forest whispers with the music, or roars like the thunder of the far off sea!

These mighty trees are the growth of centuries, and what depth of soil from centuries of decay! Here and there a vast tree lies along, the bark of which looks so sound that you would not dream of its being a tree in form only, and in reality a mass of moist vegetable loam; but you set your foot to walk upon it, and you plunge into it as you might into a huge rotten squash or melon. Sometimes the decaying trees are piled one upon another, moss-covered inches deep, the giant corses of the vegetable world, laid there by kindly nature in their open sepulcher, death amidst life, death nourishing life, new trees springing fresh and majestic from the skeletons of the old, and dropping the annual autumnal shroud of withered leaves over their former compeers in the forest. The heart of such a deep unbroken wilderness is truly a sublime, impressive, solemn spectacle. How many lessons it teaches, if only this *human* heart is in that suggestive, moral mood, in which, in such a spot as this, meditation may think down hours to moments. Nay, Cowper might have said ages to days; for you realise here something of the truth, that one day is with the Lord as a thousand years, and a thousand years are as one

day. Here are these trees, hundreds of years in rising, what grand products of time and nature, and almost as long decaying, and the processes of life and death go on in such sublime unconsciousness and carelessness, of time, as if it were an eternity of vegetation.

What grand and thoughtful objects! Seventy feet in height, some of the clean straight trunks rise up before a branch or leaf is visible, and then they spread in the sky their airy festoons and fans of foliage. The tall maples in the evening sun, look like birds of paradise spreading their golden wings, for nothing can be richer, in its transmission of the golden yellow light of sunset, than the delicate green leaf, almost transparent, of the maple. A maple seen against the sunlight, while its leaves are in their summer tenderness of hue and texture, is one of the richest and most splendid objects in the whole domain of nature. It looks as though it might have been bathed in the sea of glass in heaven, or in the river of the water of life, or in a pool of liquid topaz, so that a breath of wind across it would bring down, showering, a rain of golden light.

The play of light upon the leaves is like the changeful moods of thought and feeling in a sensitive soul, like the flashings and fitful pauses, and lightnings up again of expression, in an intelligent and watchful countenance. One can never be weary with observing the quick and magical variety. The whole forest is mottled with spots of sunlight, that takes the color of the leaf it falls on. But the loveliness of the sight depends on whether you observe the light falling on the foliage before you, and reflected from it to your eye, while the sun is behind you, or whether you look at the light coming to you through the foliage, and at the foliage with the sun behind it. The latter is much more beautiful. Indeed, as it comes and goes in the forest, it seems like a visible pervading spirit, now revealed, now hiding and withdrawing. The branches, leaves, and green earth seem to breathe with it, as if its coming and going were the inspiring and exhaling motion of the vital being of nature in these woods.

As the clouds pass and the light pours in, the depths of the woods are opened by it, the perspective of the retreating lines of trees is visible, and the radiant, sparkling air between, and the finest network of the interlacing foliage. Here and there a far off trunk, on the whole length of which the sun streams direct through some glade opening, is seen gleaming through a vista of green, and the eye runs down cloistered and festooned avenues and arches, seemingly interminable. Then again, as the sun is suddenly shaded, all is confusedly drawn together, unsphered of interspace, and comparatively dispirited and flattened, disenchanted I might say, for the coming and going of the light is like enchantment. The effect is as when you view a distant landscape with the telescope. If you get the right focus, all is clear, distinct, in full and bright perspective; but if you start the tube a line beyond or hither, then all becomes indistinct, obscure, glimmering, nor are any reaches of clear and radiant air visible between the intervals and openings of hill and valley, forest and winding dale.—*Independent.*

THE PROBLEM FOR A REPUBLIC.—The great Industrial Exhibition at London, which has just closed, has elicited many good speeches and original thoughts on both sides of the water. Its one leading aspect has not, however, been seized by any one so significantly as by Mr. WINTHROP—a statesman always most completely American, and always broad and comprehensive in his views—in his late speech at Faneuil Hall, before the Mechanic's Association. The following extract will awaken thought in the minds of all republicans:

But let me ask, sir, who of us is sorry that we are behind, far behind, the old word, in articles of mere taste and ornament? Who does not rejoice that we cannot vie with Europe and Asia, in arts that minister only to the lust of the eye and the pride of life? Who is in haste to see the day, when the tissues and tapestries, the jewels and porcelain of India or of France, shall be native to our own land? Who, on the contrary, does not desire that such a consummation may be postponed, until that double problem shall be solved, of which the history of mankind as yet affords no solution,—first, how these sumptuous and gorgeous decorations of the rich can be fabricated without the degredation and debasement of the poor;—and second, how the morality and purity, which are the very vital air of republican liberty, can withstand the fascinations and blandishments of a corrupting and cankering luxury?

And this leads me to say, Mr. President, in a single concluding sentence, that there is at least one element wanting in that great exhibition, for the purposes of any just comparison between our own and other countries. We see there the products—but we do not see the producers. We see there the fabrics—but we do not see the hands which made them.

Sir, if it had been possible to exhibit, in any tangible shape, or by any personal representation, the real condition of the artisans and mechanics of the world; if the makers of every article could have been seen standing by their work, with their ordinary dress on their back, with their ordinary food at their side, and with all the advantages or disadvantages of their relative condition fully developed and displayed—their intelligence, their education, their wages, the amount of individual comfort, independence and happiness they enjoy,—the whole moral, social, and political position which they occupy,—what contrasts would not have been witnessed! If this very hall, with all that it now contains, could be wafted over the waters by a wish, on some magic

carpet like that described in one of the tales of the Arabian Nights,—if it could be set down safely in that much talked of "vacant space" in the American section of the Crystal Palace; and if your excellent President, now there, could be on the spot to meet you as you alight, and to say to the assembled throng of visitors: "Here are the American Mechanics—here are the men who build our ships, and our houses, and our bridges, and our railroads—who make our iron ware, and tin ware, and brass ware, and who construct those wonderful machines and invent those curious implements to which you have given your prizes—and here, too, are their wives and daughters—behold them, and compare them with your own"—would they not feel that it was something better than a vainglorious boast, for us to exclaim:—

"Man is the noblier plant our realm supplies,
And souls are ripened in these northern skies!"

THE NORFOLK AG. SOC.—The annual Fair of this Society was very successful, and the anniversary dinner passed off with great spirit, on the 24th of September. The Horticultural display was excellent. The dinner to over a thousand ladies and gentlemen was furnished gratuitously by JOHN GARDNER, Esq., of Dedham, Mass. Hon. M. P. WILDER, the President of the Society, made the annual address, a portion of which being of more than local interest, we copy from the published report.

"The exhibitions of to-day furnish ample proof that progress has been made, particularly in the agricultural and horticultural departments, and settles a question on which there rested doubts previous to our first exhibition, whether Norfolk contained resources sufficient to sustain a large and successful agricultural association. The show of blood stock has never been equalled in this, if in any other county in the Commonwealth, and for which we are much indebted to the officers of the State Society and other gentlemen who have contributed by their importations or otherwise to this department.

The exhibition of Fruit is of a remarkable character, and we doubt whether, in some respects, it has been surpassed in any other portion of the world.

We are happy to see again on exhibition the improved implements of agriculture. the importance of which to the farmer can scarcely be over-rated. And what American does not feel a generous pride in the success with which these implements have been crowned at the World's Fair, especially in the triumph of a plough, the invention and manufacture of a member of this society, and which has not only distanced the competition of the world, but has absolutely turned the ridicule of European contributors into universal applause? But while we rejoice in the progress and prosperity of our society, and in the remarkable preservation of the lives and health of our members, let us not forget that the Destroyer has been among us. Three distinguished friends, who were present at our last anniversary, who then participated with us in the priviledges and pleasures of that occasion, have ceased from their earthly labors and entered into their rest. The Hon Asa T. Newhall, Delegate from the Essex society, at whose approaching anniversary no doubt a just tribute will be paid to his memory The venerable John Stewart Skinner, and Gen. Henry Alexander Samuel Dearborn

In the death of these gentlemen, Agriculture has lost powerful champions, and society old and valuable members. With the two latter, it was my privilege to enjoy a long and happy acquaintance. Both were pioneers in agriculture and the rural arts—able, constant, and large contributors to the press—gentlemen of richly endowed and highly cultivated minds—of varied and extensive learning—of lofty and benevolent purposes, and of untiring perseverance.

Mr. Skinner, in addition to numerous offices of trust, emolument, and honor, under the national government, was the editor of the first agricultural paper ever published in the United States; also, of the Plough, the Loom, and the Anvil; with many other kindred valuable works—all of which, in the language of our sentiment last year, were honor to him while living, and are monuments to his praise now he is gone.

It affords me great pleasure to bear public testimony to the brilliant talents and great worth of our lamented Dearborn—a testimony which is the result of more than twenty years intimate acquaintance with him, in our favorite pursuits and in official duty.

His labors in the establishment of the Massachusetts Horticultural Society, the Mount Auburn and the Forest Hills Cemeteries, are proud and durable memorials of his skill, energy and taste. No enterprise was too bold for him to attempt: no sacrifice was too great for him to make; no labors too arduous for him to perform, in order to promote the intelligence, the refinement, virtue, welfare, and renown of his countrymen.

His eulogy has been spoken by a master hand, and pronounced in its appropriate place. He sleeps in the consecrated ground which his genius planned, and which his taste adorned,—beneath the flowers which his own hand planted."

Answers to Correspondents.

AUTUMN PRUNING.—*B. James.* We do not hesitate to prune small limbs at any time, but north of Philadelphia it is better not to make large wounds just before winter. But if you brush the *shellac mixture* (gum shellac dissolved in alcohol to the consistency of thick varnish) over the wounds, you may prune with safety at any season.

STRAWBERRIES.—*W.*, (Cleveland, O.) The best possible covering for strawberry beds is tan-bark spread evenly over the whole bed, just thick enough to nicely cover the plants. It does not matter whether it is new or old. If you cannot get this, use straw or stable litter.

SCARLET GERANIUMS.—*P. B.*, (Watervliet.) Take them up before frost and set them in long shallow boxes. Keep them moderately dry all winter so as to encourage growth as little as possible, and they will bloom far more abundantly in the beds next season, than if kept growing in the green-house. A warm cellar will carry them through the winter safely, if you have plenty of light in it.

PEARS.—*Pyrus*, (Philadelphia.) The non-productiveness is owing to deficiency in the soil. The best special manure that we have tried for pear trees is the *bone-black* of the sugar refiners—that may be had for a trifle. Mingle it with the soil around the trees, at the rate of a peck for a trunk of the size of your wrist, and two bushels for a large-bearing tree. If your soil is worn out by long culture add ashes and a plentiful supply of stable manure. The Louis

Bonne de Jersey is one of the most regular and plentiful bearers. Doyenne Boussock is large and delicious. Beurre Gris d'Hiver Nouveau is one of the finest new winter pears, melting, high flavored, and a good bearer. (It would be better to call it simply *Gray winter Beurre.*) Lawrence is also a first rate winter pear for the dessert, of native origin. Swan's Egg is—good for nothing. The following is the complete list of *best pears* for general cultivation adopted at the two meetings of the Pomological Congress. It may be taken as the results of leading fruit growers' experience, viz: *Early Pears*—Madeleine, Rostiezer, Dearborn's Seedling, Bloodgood, Andrews, Tyson. *Autumn Pears*—Bartlett, Golden Beurre of Bilboa, Buffum, Fondante d'Automne, Seckel, Fulton, Flemish Beauty, Beurre Bosc, Louise Bonne de Jersey, Urbaniste. *Winter Pears*—Winter Nelis, Beurre d' Aremberg. *Fine Pears for particular localities*—White Doyenne (Butter pear or Virgalieu,) Gray Doyenne. *Late cooking Pears*—Vicar of Winkfield, Avedale, St. Germain or Pound. In selecting a site for pears choose an aspect *not* too warm or *southern*, for the direct sun does harm in mid-summer and mid-winter; choose or make a *deep* soil, keep your trees low and bushy, and always protect the roots in summer by mulching the surface of the ground.

Shrubs.—*A Lady Gardener*, (Pittsburgh, Pa.) The best shrubs for small grounds are not those solely remarkable for beauty of blossom or fruit, for these usually last but a few days, but those with good foliage and fine habit of growth. It is better to multiply such, than to have a great variety—merely for the sake of variety—if your object is picturesque embellishment rather than botanical rarity. We recommend to you, as answering this description the following: Virginian Fringe tree (grows 6 or 8 feet,) Venetian Sumac, (10 feet,) Cornelian Cherry, (10 feet,) Purple Strawberry tree, (7 feet,) Oak leaved Hydrangea (3 feet,) Magnolia obovata, (6 feet;) Early white Viburnum, (8 feet;) Rose Weigela, (3 feet;) Rough leaved Deutzia, (4 feet;) Spirea Lindlyeana, (3 feet;) Tartarian bush Honeysuckles, 3 sorts, (3 to 5 feet;) Dwarf Horse Chestnut, (3 feet;) Tree Pæonies, (2½ feet.) Manure your shrubberies by top-dressing them with manure at *this* season of the year—rather than spring, and you will find the advantage of it.

Vines.—*Ibid.* The best woody vines for the trellis of a veranda are the following: Chinese twining Honeysuckle, Yellow trumpet Honeysuckle, Chinese Wistaria, sweet scented Clematis, Tecoma grandiflora and the Virginia creeper. Ivy does better (north of 42° lat.) on the north side of buildings than the south side. The Dutchman's pipe vine is very hardy, with large picturesque foliage and will cover a large trellis or arbor.

Green House Plants.—*M. E. Irwin*, (Southbridge, Mass.) The proper soil for the plants you name—Gardenia Fortunia, Æschynanthus Hrsofieldii, Æ. zebrina, Hoya bella, and Chorizema varium—is the following: one-third pure loam, (say the rotted sods of an old pasture,) one third decomposed manure (old spent hot-beds,) one-third leaf mould from the woods, and add to the whole as much white sand as will make the compost light and porous. The plants may all be grown in a common green house temperature, but all of them, except the Gardenia, should be kept in the warmest part of the green-house, with plenty of light, and watered as often as the soil appears in the least dry. *Florella*, (New-London.) Pot Chinese Primroses in light rich soil—old spent hot-bed mould and silver sand, give them plenty of water and keep them as close to the glass as you can. If you plunge your hyacinths in pots in a hot-bed frame filled with tan-bark, and keep them near the glass, and sprinkle them every day, they will do better there than in the green-house till the weather becomes very frosty. *Olea fragrans* and *Daphne odora* are the two most deliciously scented green-house plants. The former blooms all winter, and has the scent of violets. *Begonia fuchsioides* is as handsome as any Fuchsia in its blossoms, and in a *warm* green-house it blooms almost perpetually. In a cold one it thrives but poorly. The little daisy flowered chrysanthemums with flowers no larger than a daisy, are a great acquisition to the green-house at this season.

CHURCH IN THE ROMANESQUE STYLE.

Hort: Dec. 1851.